The OIL WEEKLY

A Journal for
Oil and Gas Producers and Field Men

HOUSTON
LOS ANGELES

NEW YORK
FT. WORTH

TULSA
CHICAGO

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Here it is, boys

—a husky, lightweight brother of Wilson Spring-Latch Tongs —is the brand new

WILSON TUBING TONGS

It has taken months of experimental work to finally design and perfect Wilson Tubing Tongs. But our skilled engineers stuck to the job—and NOW the result of their endeavors is ready for you! Made on exactly the same principle as the big Wilson Tongs. The famous "sure-grip" spring-latch mechanism is successfully embodied. Every detail is sturdy enough to withstand even the severest strains—yet Wilson Tubing Tongs are light enough for quick and easy handling. Don't use old-fashioned, time-consuming methods any longer. It isn't necessary. Get Wilson Tubing Tongs and SPEED UP production! Details on request. Write TODAY!

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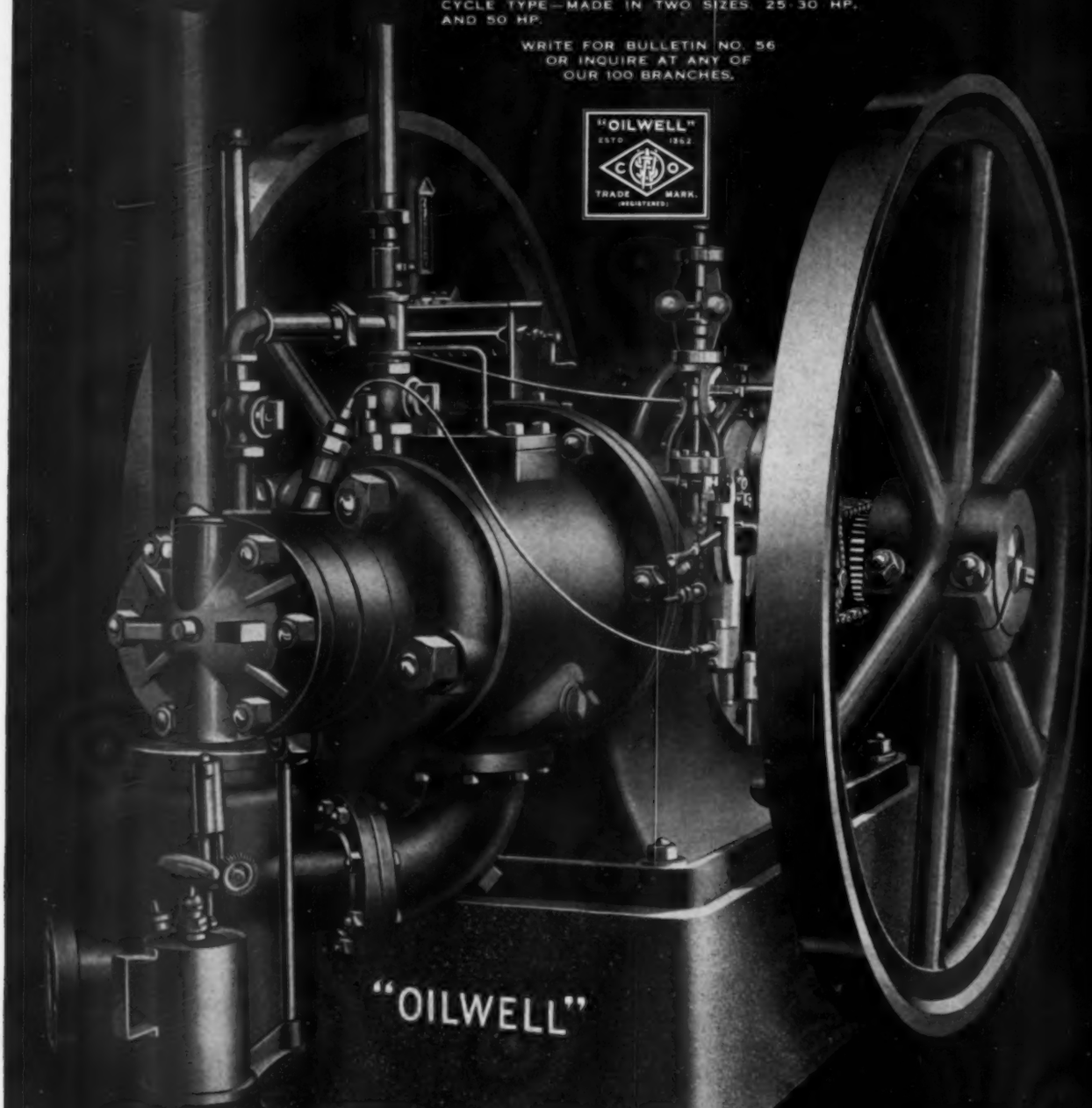

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It stands to reason, doesn't it? Fewer parts—fewer chances for grief. STRONGER parts—even more remote chances for grief. This principle, together with sound improvements in design, is the secret of the amazing service that Gaso Pumps are giving wherever they are introduced. It explains why Gasos have risen from obscurity to leadership in less than 10 years.

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No. 601
Walking Beam Pump For Oil or Water. Designed for 450 to 600-lb. pressures. Practically no gasket surface, valve pots being cast integral with body.

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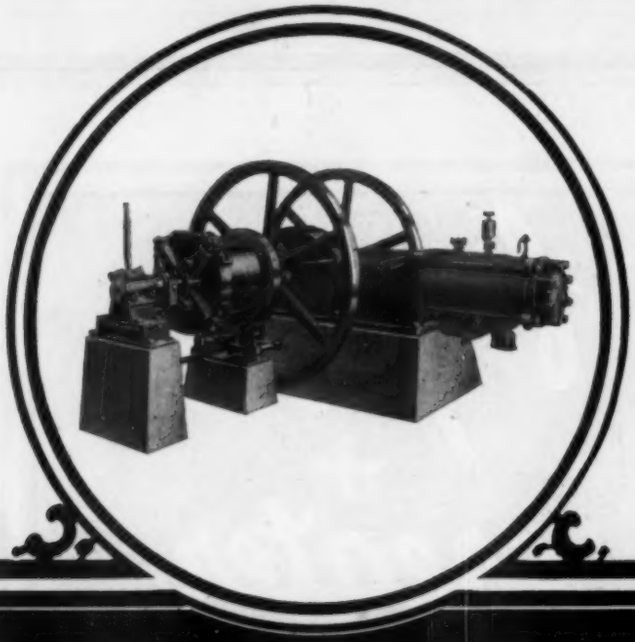
for every oil industry need

Say you saw it in The Oil Weekly



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VALVELESS GAS ENGINES

Once you have used the FRANKLIN you will use no other kind of gas engine because no other kind gives such real satisfaction, performs so powerfully and smoothly, has so few repairs necessary as the FRANKLIN.

Its construction keeps out all sand and grit; the valveless feature eliminates valve grinding and the splashing oil system used reduces your lubrication bills by 75%.

You have heard what the FRANKLIN has been doing—why not let them do your work also.

Write to-day for Descriptive Bulletin

Franklin Valveless Engine Co.
Franklin ~ ~ Penna.

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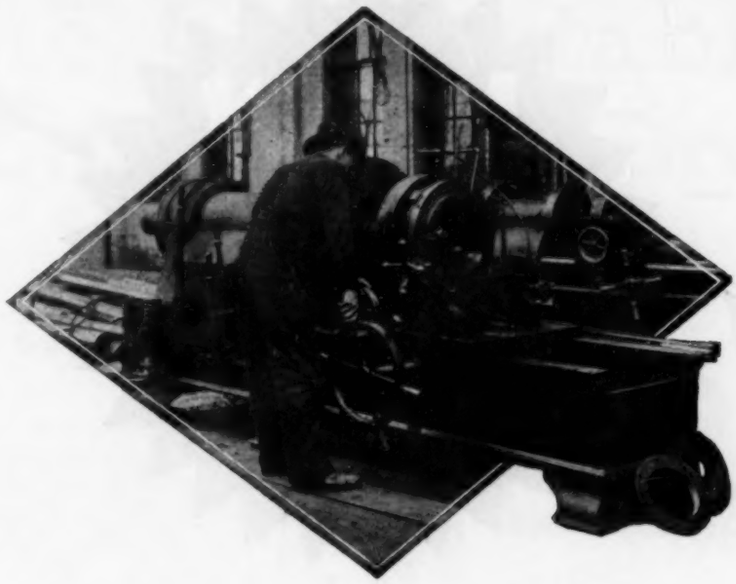

The Finished Product of Forty Years' Experience

For 40 years we've been making and improving on the Jarecki Pipe Threading Machine. We were, in fact, one of the pioneer pipe machine manufacturers.

As a result of this experience, the Jarecki Pipe Threading Machine has reached such a state of perfection that we can't help feeling proud about it.

More than 50 per cent of the machines shipped last year were REPEAT ORDERS. Companies like the New York Central, Pennsylvania and Chicago, Burlington & Quincy Railroads consider the Jarecki machine first when ordering new equipment. More convincing proof of their perfect operation would be hard to find.

The Jarecki Pipe Machine is compact, convenient and strong. The die head is designed for easy and rapid manipulation. The dies are milled from the best Vanadium Die Steel, threading one or two sizes as desired. Cut-off and reaming tools are attached to the rear of die head.

PATENT TAPER ATTACHMENT is included when special or extra-long tapering or straight threads are to be cut.

In every detail of the Jarecki Pipe Threading Machine you will find that sturdy dependability that you naturally expect in the finished product of 40 years' experience. We will gladly give further information.

WE SELL EVERYTHING USED OR NEEDED ABOUT AN OIL OR GAS LEASE

Jarecki

MANUFACTURING CO.

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Say you saw it in The Oil Weekly

Ask Yourself This Question—

HOW DO YOU BUY BITS?

The OLD WAY—By the Pound

OR

The NEW WAY—"For the Service They Give"

When a new fish tail bit is needed do you ever stop and wonder that among the many hundreds of makes of bits, if there isn't ONE that will give BETTER service, last longer, make more hole per sharpening?

Many operators are still buying bits just by the pound alone. Many others, however, are learning that a pound of ONE bit may mean more than a pound of another make. The last named operators have tried BANNER BITS. They have quit buying pounds alone—and are now buying service.

BANNER BITS MEAN MORE Hole Per Dollar

In the manufacture of banner bits selected highest grade steel is used; the design is for strength and long life; every bit is thoroughly inspected before being sold. The natural result of this specilization inspected before being sold. The natural result of this specialization they sell for a little more per pound. The economy is in the service rendered. You get more hole per bit; and get it quicker, because Banner Bits require fewer re-sharpenings.

Out of 700,000 pounds of these bits, we have had but one broken bit

LOOK FOR THE RED BANNER

"GULFCO" PRODUCTS CAN NOW BE HAD FROM STOCK AT ANY OF THE FOLLOWING STORES OF THE

Petroleum Supply Co. Smackover, Ark., El Dorado, Ark., Mexia, Tex. Shreveport, La., Corsicana, Texas Houston, Texas, Norphlet, Ark.

Gulf Coast Machine & Supply Co.

BEAUMONT, TEXAS

The Comfortable Gas Engine-Compressor *to Operate* is that built by HOPE

Vertical Type

A good measure of the real merit in a machine is the comfort with which you can run it. You wouldn't get any satisfaction in a car that you had to nurse along. Modern cars are nearly all comfortable to own. So, too, the Hope Vertical Gas Engine.

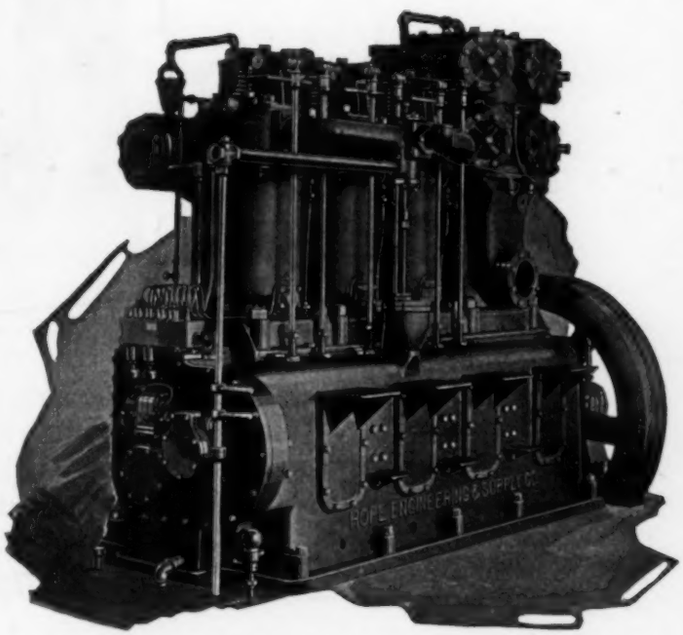
In the first place it is balanced, runs smoothly and without vibration. Nor does it depend on mass weight, it is modern, of high speed, high efficiency type. You don't need a red light burning over your panel-board of tools. There aren't any engine stuffing boxes to leak or troublesome adjustments to watch. The Hope Engine is trouble free—and permanently so.

Modern in every element of its design, adapted to the requirements of gas pumping through the specialized knowledge of its builders, it is a safe and sound investment—for today and years to come.

A sound investment, because when over-all costs of the engine-compressors, auxiliaries, installation cost, and the size building needed, are compared, the Hope Vertical Gas Pumping Units are the best buy on the market.

Smaller building, smaller foundation saves money. Lighter weight lessens freight delivery costs, assembled delivery cuts time and labor of installing. Units can be moved and re-erected as easily. Operating costs always satisfyingly low.

Write us for illustrated descriptive literature



The Hope Biplane Valves are a distinctive feature of Hope Compressors. More ample port area and more sensitive valve movement maintain high efficiencies for Hope high-speed compressors

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JONES

recommends it for

CLEANING OUT

I. H. Jones, driller, left, and George Covey, tool dresser, are shown here using an 8-inch GUIBERSON Swab on a clean-out job for the Ohio Oil Company, at Salt Creek, Wyoming.

These boys, and Fred E. Smith, Superintendent, tell us the GUIBERSON Swab is in a class by itself. They are using it in all sizes and for all purposes for which a swab is suitable.

The GUIBERSON Swab, in a little more than a year, has come into world-wide use. It is estimated that half the world's swabbing is now being done by this swab.

"Better Be Safe Than Sorry"

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EACH Reading coupling for oil-field use is hammer-forged, driving the particles of iron together, making a firm weld stronger than any other part of the coupling's wall.

The entering thread of each Reading coupling is beveled off, rendering it practically impossible to cross threads—easier and quicker stabbing is the result.

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The inherent quality of wrought iron makes practical threads capable of withstanding *continual grief without galling*. Strict tolerance limits are observed in threading Reading couplings.

When you buy Reading couplings you are using genuine wrought iron, thoroughly resistant to the progress of rust.

These are the reasons why "Reading" couplings are superior and are borne out when put in service.

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High Grade Petroleum Products

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"A Grade for Each Condition"

For satisfactory operation of Ford Cars use Magnolene Ford Oil

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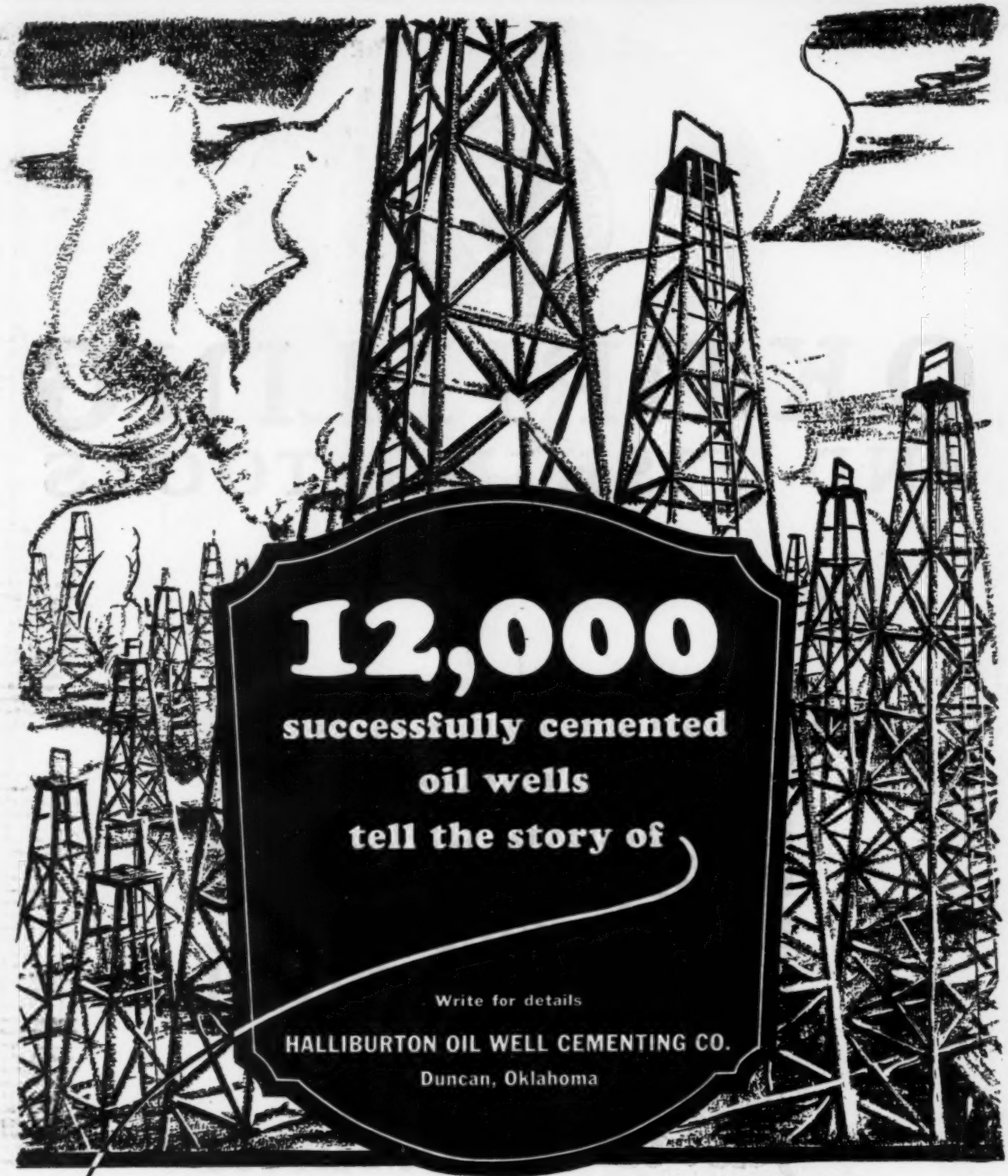

Equipment Available for all Fields

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Producer *Refiner* *Jobber* *Distributer*

High Grade Petroleum Products

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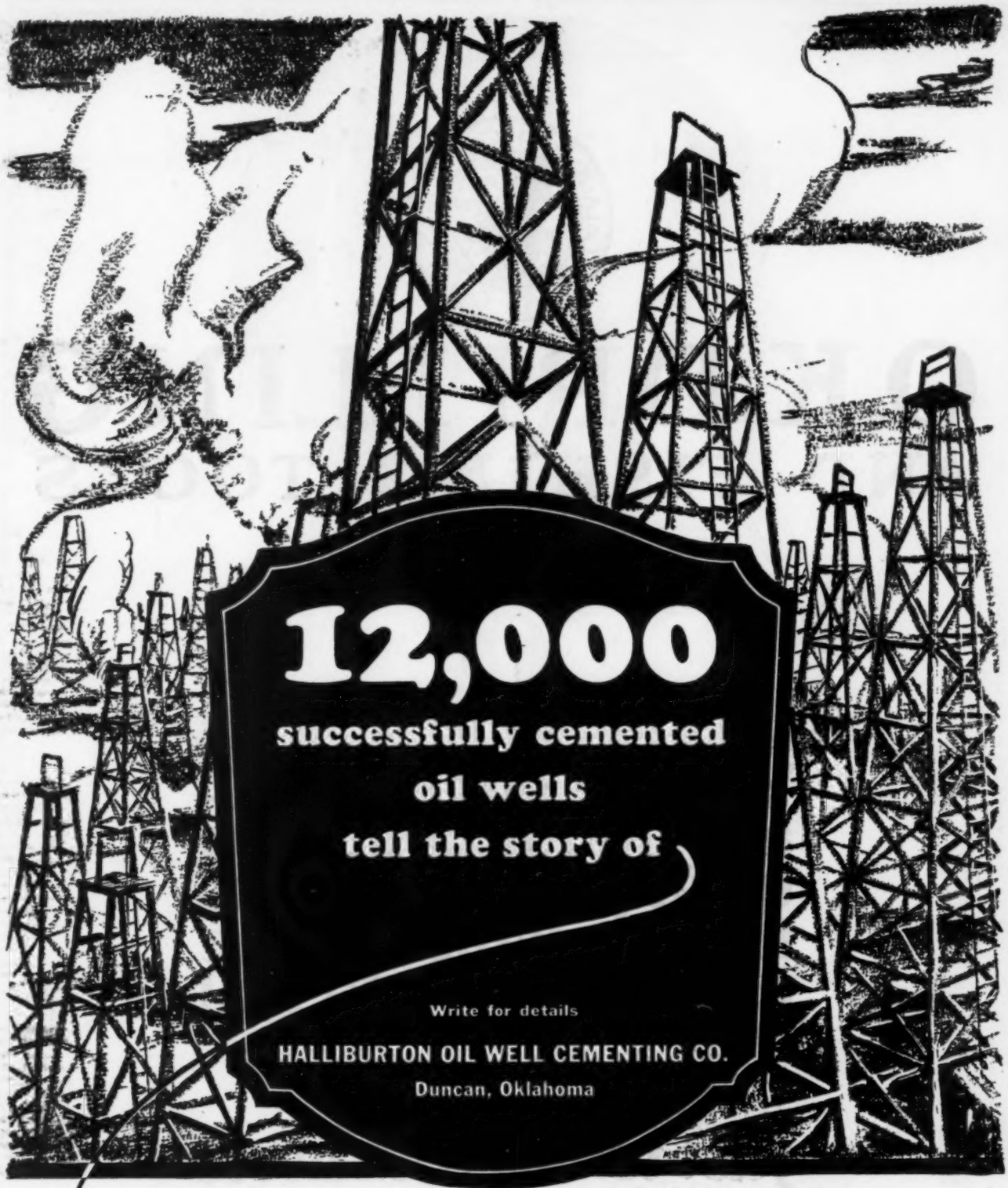

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HALLIBURTON

Scientific Oil Well Cementing

O.K. DRILLING
AND FISHING TOOLS

Yes! we have them—and hundreds of other quality lines for the oil field on which we are ready to give you real

—Service—

just tell us your needs

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Branch stores in 23 of the leading oil field towns in Oklahoma, Kansas, Wyoming, Colorado and Texas.

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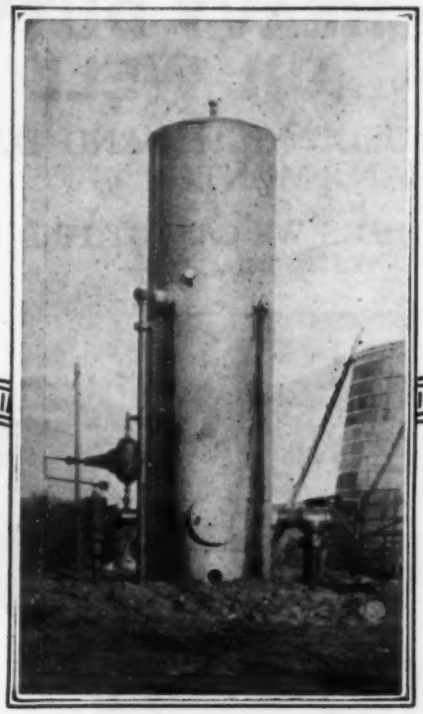

Smith at Marland's Lease at 101 Ranch

The Smith Oil and Gas Separator is handling the 900 barrels of oil and one and one-half million feet of gas of the Margaret Miller No. 3 on the 101 Ranch (33-23-3E.)

The well is owned by the Marland Refining Company and Geo. L. Miller.

Efficient separation of the oil and gas has been the record of this Separator.

Type 10—	Capacity	25,000 bbls. oil,	100 million cu. ft. gas.
Type 1—	Capacity	5,000 bbls. oil,	10 million cu. ft. gas.
Type 2—	Capacity	2,000 bbls. oil,	5 million cu. ft. gas.
Type 3—	Capacity	500 bbls. oil,	1 million cu. ft. gas.

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TULSA, OKLA.

Chestnut & Smith Corp. Bldg.

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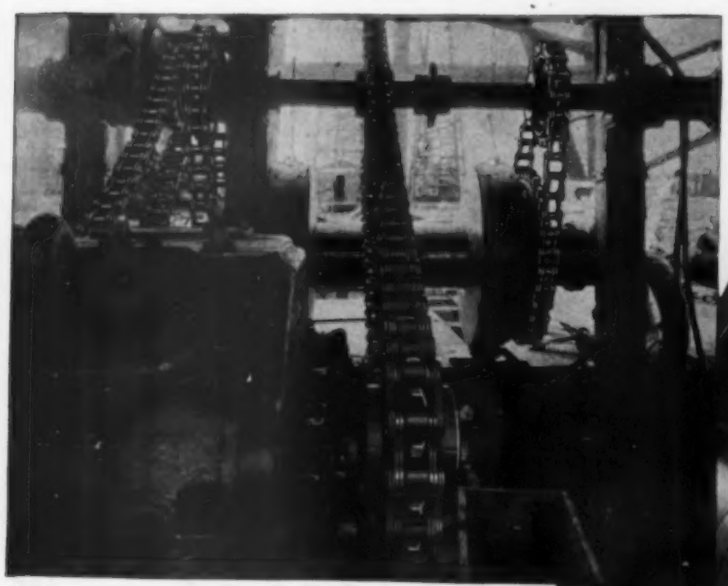
IN SERVICE CONTINUOUSLY NIGHT AND DAY FOR MORE THAN 8 MONTHS

From July 1, 1923, to March 28, 1924

"IF THEY ARE WORN ANYWHERE WE CANNOT FIND IT"

AN UNSOLICITED TESTIMONIAL



The Freeport Sulphur Company, Freeport, Texas, says in its letter of March 28th, 1924—"With the exception not to exceed five weeks, these chains have been in service continuously, night and day, since they were installed (July 1, 1923), using rock bits almost entire time. This set of chains has been used exclusively on Stratton Ridge, which undoubtedly is among the most difficult drilling formations encountered in this country, holes averaging better than 4300 ft. and majority of digging is hard rock."

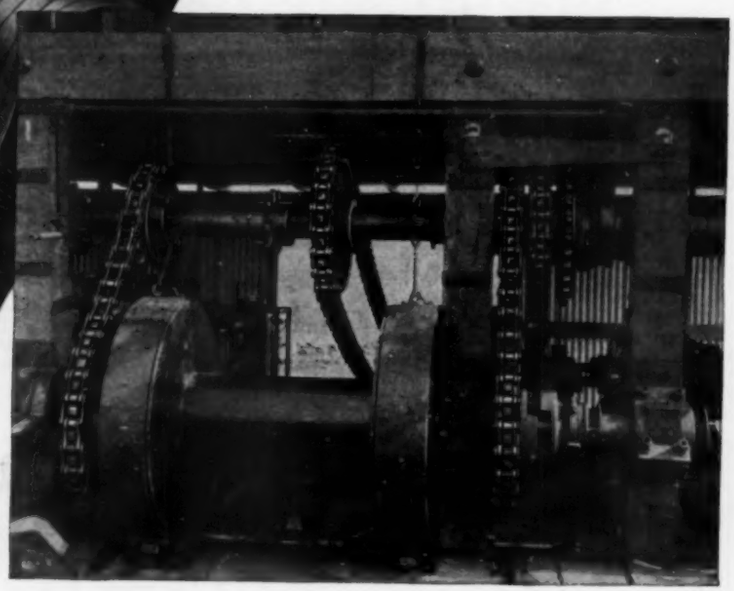
ACCURATE TO A THOUSANDTH OF AN INCH

GENUINE BALDWIN CHAINS 1030

GENUINE BALDWIN CHAINS 1240

"We are pleased to state that the set of chains above referred to is, today, in continuous use and show no signs of giving way. If they are worn anywhere we cannot find it. They have given no trouble whatsoever, and with the exception of replacing one broken roller in the engine drive chain, no repairs or shortening of the chains have been made. Previously to drill the same amount of hole we would have used probably nine sets of ordinary type chain."

"Send for Bulletin 28"



On Sale at Leading Supply Houses

Baldwin Chain & Mfg. Co.

WORCESTER, MASS., U. S. A.

LOS ANGELES, CALIF., Adam-Hill Co., 637 So. San Pedro St.

SAN FRANCISCO Adam-Hill Co., 96 Ninth St.

DALLAS, TEXAS, Geo. J. Fix Co., 815 So. Ervay St.

PERFORMANCE

10% OF THE WELLS AT SANTA FE SPRINGS ARE SWABBING AND GETTING 25% OF THE TOTAL PRODUCTION.

The P. O. T. Super Swab is Used Exclusively or 100% and is Swabbing a Daily Average of 13,500 Barrels.

At Long Beach a well that had been pronounced dead was swabbed for 7 days when it came in blowing the tools out of the hole and flowing over the crown. In this case the swab was run down through the perforations to the bottom of the well effectively cleaning out the perforations.

The P. O. T. Super Swab is Scientifically and Mechanically Correct. It pays for itself in 48 Hours or Less.

Ask Your Supply House or Wire Us.

PACIFIC OIL TOOL Co
EAST SEVENTH AND MATEO STREETS
LOS ANGELES CALIFORNIA

DO YOUR TONGS TAKE ALL OF YOUR SIZES OF PIPE AND COLLARS FROM CASING TO TUBING ?

Sixteen Sizes in New Eureka Tongs

Constructed for speed, durability and to take sixteen distinct sizes.

These different sizes are attained by the use of various size grips, which can be changed by hand in less than one minute's time.

The hinge jaw and four piece grip construction, and rear handle control are steps far ahead of the field of tongs.

BUY FROM YOUR STORE

PATENTED

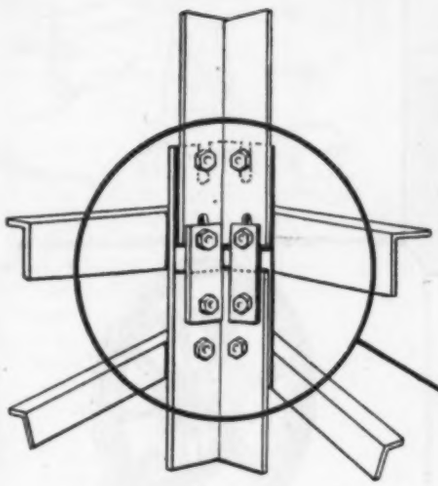
Mfg. by

LEBUS ROTARY TOOL WORKS

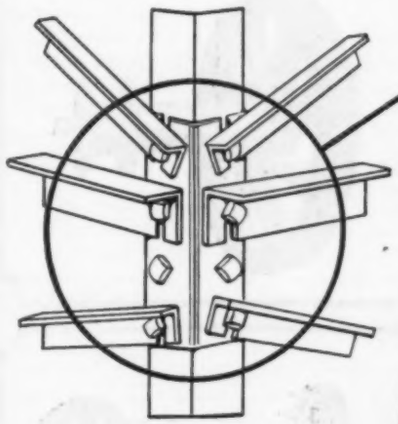
ELECTRA, TEXAS, U. S. A.

PARKERSBURG STEEL DERRICKS

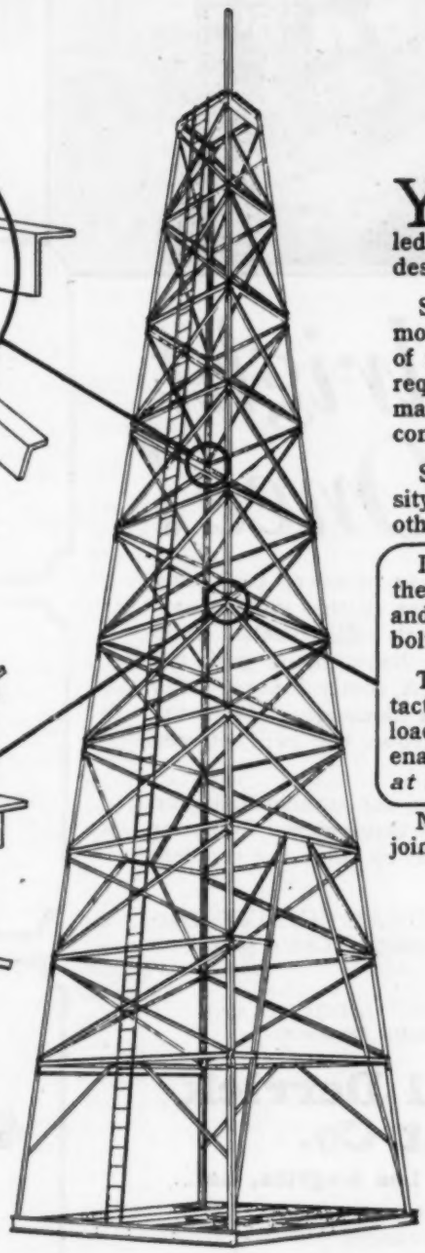
—Perfected
—Patented
—Reinforced



After the nuts are tightened, the joint is secure. Note butt-to-butt contact



Outside view of joint, with girts and braces in position



YEARS of oilfield experience with wide knowledge of every type of steel derrick led us to select a successful *structural* steel design and *improve* it.

Structural shapes are readily available in more sizes and weights than any other form of manufactured steel. Due to this, derrick requirements can be more closely approximated in *structural* shapes than in any other commercial shapes, *and at less expense.*

Structural shapes also eliminate any necessity for the costly connections required by other types of derricks.

In Parkersburg Structural Steel Derricks, the leg joint includes a combination of slots and holes so there is no need to remove bolts for dismantling or re-erecting.

The slots insure a solid, butt-to-butt contact between leg sections which carries the load straight down the derrick legs, and enables the structure to settle completely *at the time of erection.*

No danger of Bolts becoming loose in joints, every Bolt furnished with Lock Washer.

OUR DERRICKS ARE COVERED BY PATENTS

Patent Nos. 852486, 898027, 877624, 946815, 1090955, 1306793, 1341096

Other Patents pending

Ask our nearest representative for detailed specifications

PUMPERS
59′ 0″ x 20′ 0″
75′ 0″ x 20′ 0″

DRILLERS
81′ 0″ x 20′ 0″
88′ 0″ x 22′ 0″

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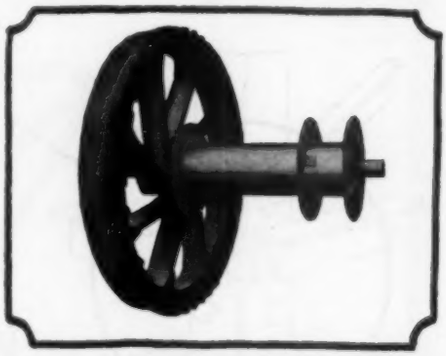
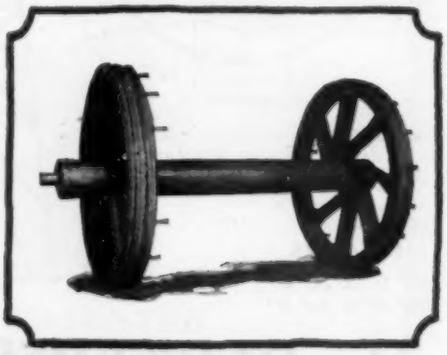
It was Alright —Once!

LITTERING up the open spaces of every producing field you will find these relics of the wooden age. Broken down bull, band and calf wheels. Good enough when fortunes were being made with the bringing in of every well. A costly luxury today when the law of supply and demand is hammering down the price of oil, and every penny spent narrows the gap between profit and loss.



This is the age of steel! Wise operators are standardizing on INTERNATIONAL "IDECO" All-Steel Equipment. Complete Steel Rigs—from mud sill to gin pole. They solve the problem of successful, economic production.

The salvage value of an INTERNATIONAL "IDECO" Derrick and all-steel Rig (Galvanized) is 100%. There just isn't any wear out to them.



Write for full information on INTERNATIONAL "IDECO" All Steel (Galvanized) Derricks, Wheels and Complete Equipment

The International Derrick & Equipment Co.

Columbus, Ohio **Los Angeles, Cal.**

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INTERNATIONAL STEEL DERRICKS (GALVANIZED)

The Largest Company Devoted Exclusively to the Manufacture of Steel (Galvanized) Equipment for the Oil, Gas and Artesian Industries

Say you saw it in The Oil Weekly

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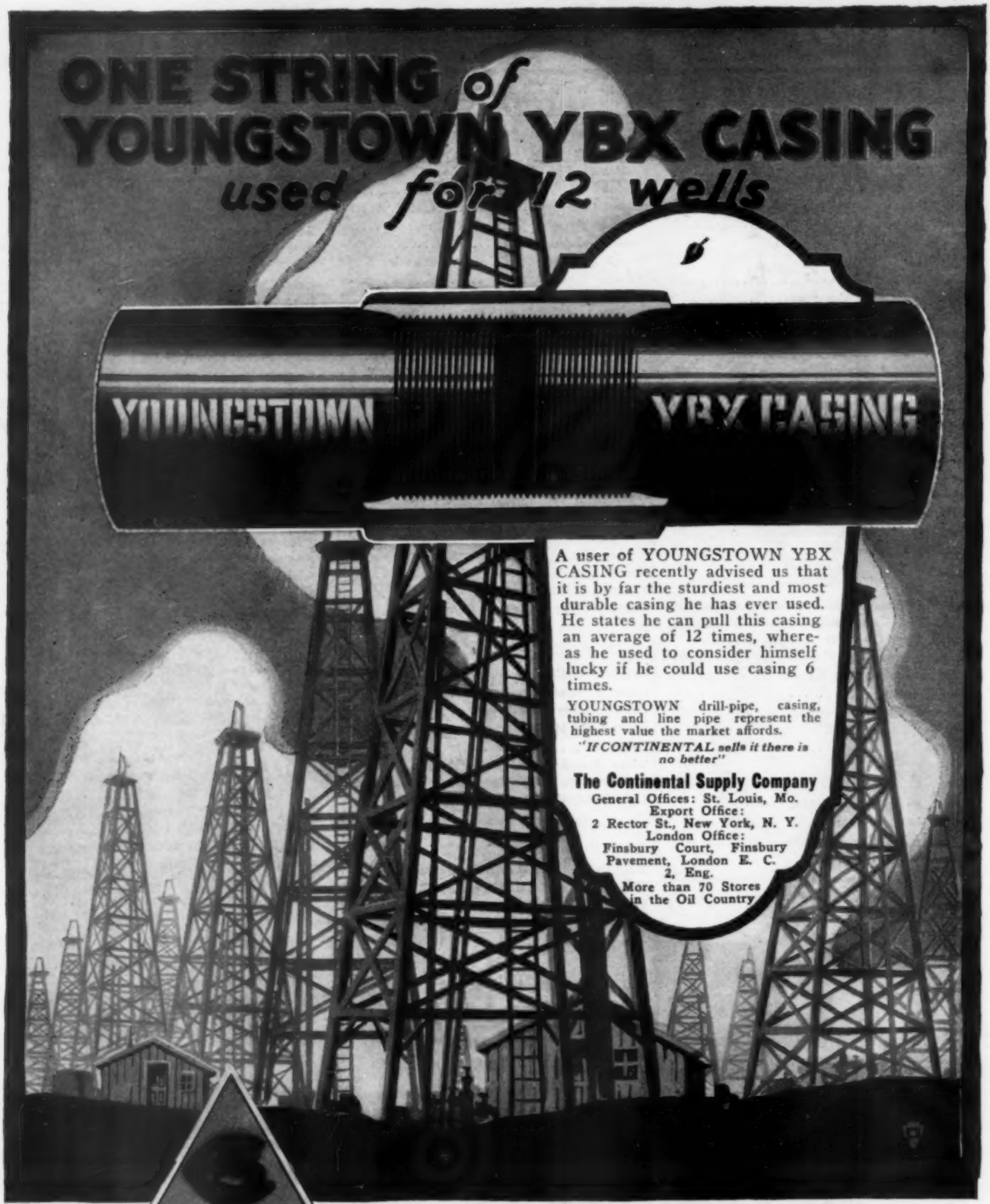
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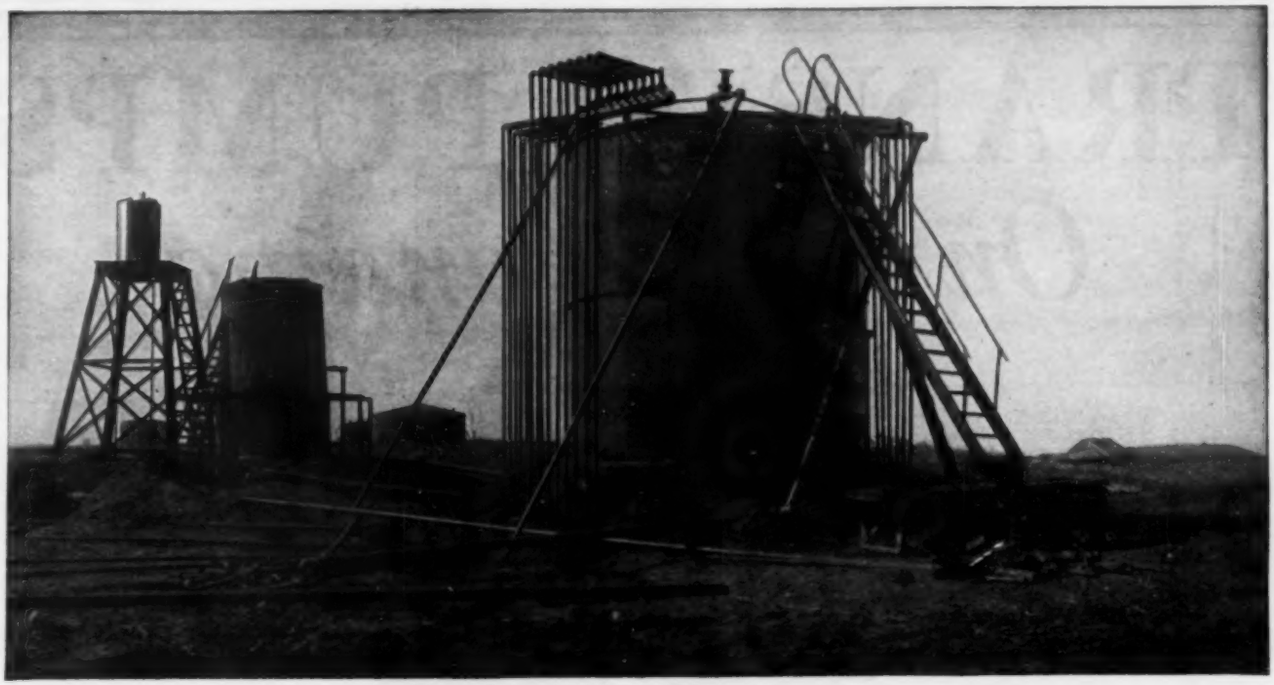

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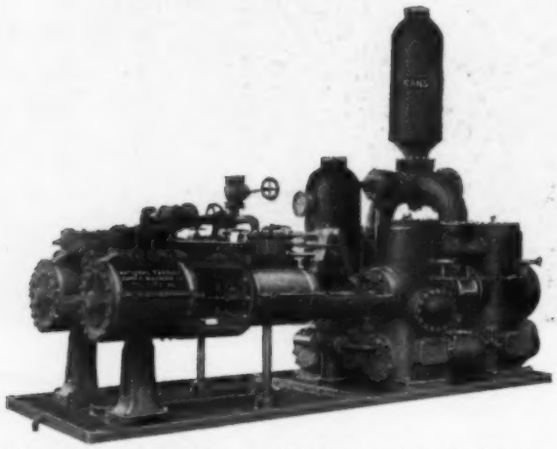

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Wortham Offers Disturbing Market Factor

Many wells to be completed within month— Texas refineries operating at peak output

THE new Wortham field in the East Central Texas fault region is having a disturbing influence on the North Texas crude market, and previous predictions on an early advance in crude prices are being reconsidered in buying circles pending the outcome of heavy drilling campaigns in this new flush area. The spot crude market in the Wichita Falls district reflected a softer tone early this week due to considerable oil being held from the market in anticipation of an immediate crude advance, and owners are inclined to take premiums offered by refiners rather than to continue to pay storage charges and hold the oil for higher prices. News of the double strike at Wortham has been generally accepted as a crude market disturber without discounting for the possibilities of an unusually narrow producing structure, and the fact that a large volume of the production will be stored and withheld from the market pending higher prices.

Wortham crude will not come in active competition with other high gravity crudes produced in the North Texas fields, as it is beyond the reach of independent refiners, except at Dallas and Fort Worth, and the bulk of the production will move to the Coast via six major trunk lines, while Prairie is the only carrier in the Wortham area that will pump north to the Mid-Continent district. Although these major pipe line companies may discontinue active solicitation of additional crude in other fields to give right of way for flush production from the Wortham area in their lines, they can not afford to surrender connections in other fields, as the flush in the fault fields is short lived, and Wortham promises to be likewise with drilling getting underway on all sections of the supposed structure at once. It is of interest to note that the average life of flowing wells in the fault region is only 30 days when drainage has been underway any length of time. The Boyd Oil Company, which brought in the two discovery wells and is among the large lease owners at Wortham, is erecting ten 55,000 barrel tanks immediately to store part of its flush for higher crude prices, while other lease owners are contemplating the same action as a means of helping the crude market and to realize more for their oil.

Crude takings of refiners in the North Texas district is probably at its peak, as refiners are operating with gasoline storage tanks empty and gasoline orders waiting acceptance, especially on 64-66 gravity export grade of gasoline. Refiners have hesitated on selling futures owing to expected advances in crude prices, but developments in the crude market during the past week may change their viewpoint, and result in a number of orders being booked for deliveries over the last half of December and into January. Caution has been the watchword of refiners since both refined and crude products began gathering strength more than six weeks ago, and such a policy has enabled them to realize a fair profit on their operations recently.

As a result of the Boyd Oil Company completion at Wortham, all hopes of an increase in crude oil prices have been abandoned in

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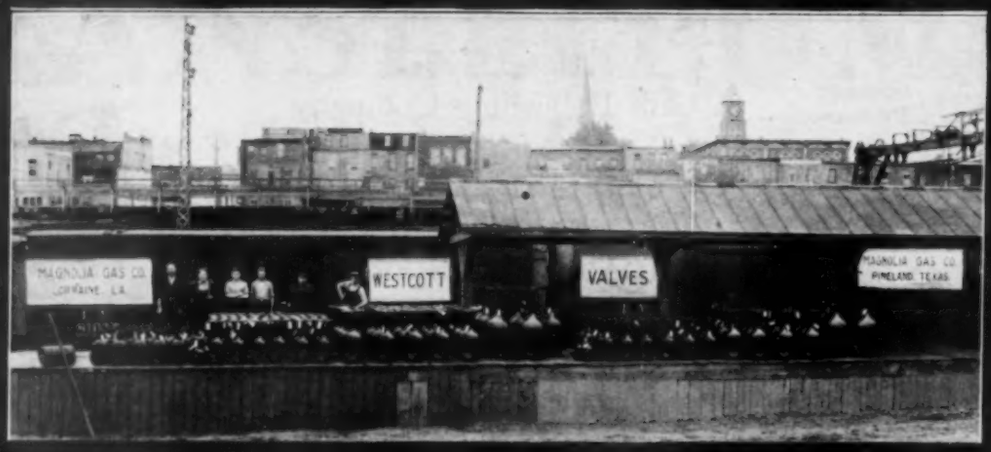
The OIL WEEKLY wants only such subscribers as are engaged in the oil producing or pipe line business, or sub-branches of the producing and pipe line business. It has no desire for investor circulation and it reserves the right and will exercise the right to reject subscriptions coming from persons whose interest in the oil industry is through the purchase of oil stock.

R. L. DUDLEY, Publisher.



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Production for November Slightly Down

Market tendency results in material slump in field statistics and initial production

WITH increases in production from only three states during the past month, the total recovery of crude oil for the United States fell below that of October by 2,500,000 barrels. Figures from all fields show 58,375,685 barrels for November against 60,903,714 barrels for October.

Simultaneous with this decrease is reported a material slump in field statistics and initial production.

The cumulative effect of a weak market and restricted drilling operations is responsible for the continued tendency of practically all districts to diminish in their output of oil. Whatever strengthening is apparent in the crude market came too late in the month to serve as a stimulus for more drilling and besides, the approach of winter precludes field work in many districts, especially throughout the north and east.

Daily average production for the last week in November was 10,000 barrels below that of the last week in October.

Although the month just ended had only 30 days, we still get a decrease of 500,000 barrels if we add one day's production to the output of November, showing a definite decrease which has not been so apparent before.

Oklahoma Up

Two of the three states which have held above the 10,000,000-barrel mark for several months showed less production during November than in October. California and Texas were off, but Oklahoma showed an increase of about a half million barrels, due to deep sands at Tonkawa, and to new flush production from the Gilcrease-Papoose and Cromwell pools in Southern Oklahoma. Completions for the whole state dropped below those of last month by 100.

Although the month was an eventful one for Texas, output of the state was off 500,000 barrels. Field work was below that of last month in every district.

Toward the close of the month interest was divided between the sensational discovery of two new salt domes in Fort Bend County through indications recorded by the seismograph and torsional balance, and the bringing in of a new fault pool between Currie and Mexia near the town of Wortham, in Freestone County. Other than the fact that most salt domes in the Gulf Coast have yielded oil, no indications of actual production have been found on the two new domes. Tests are in progress at this time. The field at Wortham, however, is already the scene of a big boom and wells are being started just as fast as material can be moved to locations. Both the wells completed made very creditable records and have served to make Wortham the oil center of North-Central Texas at this time.

Texas Fields Decline

Old fields of the State failed to hold their own in most instances. Archer County held above the million barrel mark and was bolstered up by initial production from the South Vernon pool, but this increase was offset by steady declines in other fields.

Nearly twice as many wells were completed in California in October as were reported for the past month. Initial production was reduced by about one-half, with the result that the total output of the state showed a considerable drop. No new fields are in sight at this time, but there is a flurry of activity reported from the Rosecrans district.

Successful completions at Cotton Valley with the aid of the one producer at Lockport, boosted total production for Louisiana over that of the previous month. Several big wells were brought in at Cotton Valley and one of them made pipe line oil. Operators are encouraged over the outcome of this well and a number of tests are being drilled at this writing.

Storing in East

Central and Eastern States failed to hold up to figures of last month. East of the Mississippi, everything is tied up awaiting the return of better prices for crude, and what oil is produced from old wells is being stored. No new work is being planned. Central States show an average number of completions but all producers are small and field work is not sufficient to sustain production at a steady level.

For several weeks Mountain States have been at a stand-still due to severe weather. Drilling material has been stored in most fields and completions are very few. Production for that section was off more than 500,000 barrels for the entire month.

Field operations in the North Texas district were very active during November, with Archer and Wilbarger Counties holding the lead in new drilling and flush production. This unusual heavy activity is largely due to increased demand for crude and favorable prospects for an advance in crude price schedules before the close of the year, while a large amount of new territory has been opened for development in recent weeks. The volume of flush production coming from Archer County and the South Vernon field, Wilbarger County, has temporarily detracted interest from the Burkburnett and Electra districts in Wichita County, and the latter have been declining in production owing to the absence of new production to offset the natural depletion of old wells.

Archer County, Texas

Archer County added 21,015 barrels of new production from 87 new producers during November, and produced

NOVEMBER U. S. PRODUCTION

Following is the gross estimated production of crude oil in the United State for the month of November as compiled by The OIL WEEKLY:

California	17,868,750
Wyoming-Montana	2 818,260
Eastern States	3,187,500
Texas	10,956,275
Oklahoma	15,409,480
Arkansas	3,641,730
Kansas	2,540,690
Louisiana	1,953,000
Total	58,375,685
October	60,903,714

UNITED STATES FIELD STATISTICS

Following are the completions, showing producers, gas wells, failures and initial production of crude by states for the month of November, as compiled by The OIL WEEKLY:

California	63	63	..	..	22,080
Oklahoma	254	168	17	69	95,694
Kansas	38	9	1	28	3,670
Kentucky	125	86	7	32	3,808
Mississippi	..	..	..	..	....
Mountain States	12	10	..	2	1,709
New York	9	9	..	..	32
Ohio	190	116	50	24	1,527
Pennsylvania	162	124	22	16	903
Tennessee	..	..	..	..	....
W. Virginia	139	45	77	17	519
Louisiana	32	10	14	8	16,339
Illinois	20	10	1	9	275
Indiana	9	8	..	1	285
Arkansas	43	31	1	11	2,192
Texas	340	199	15	126	54,102
Totals	1,436	888	205	343	203,135

PAST TWELVE MONTHS

The record for the past twelve months is an interesting study for comparison purposes, the following table giving field statistics for all states in the Union. Figures for Southern California begin in June, 1924, and those for Mountain States begin in November.

Month—	Completions	Producers	Gas wells	Failures	Initial Prod.
November	1,038	760	25	253	562,231
December	1,447	1,032	50	355	224,794
January, 1924	926	554	153	219	71,781
February	1,105	798	40	267	183,204
March	1,510	948	211	351	293,772
April	1,634	1,084	187	363	280,160
May	2 431	1,605	273	553	343,531
*June	1,808	1,215	193	400	182,750
July	1,637	1,087	168	382	203,875
August	2,041	1,405	196	440	316,713
September	1,503	1,029	152	322	226,716
October	1,788	1,149	221	418	255,820
**November	1,436	888	205	343	203,135

*Statistics for Southern California included.
**Mountain States Statistics included.

more than one million barrels of oil during the month. May and June of this year were the only two months that the county's output has exceeded the million-barrel mark, and indications are that total production for December will be considerably in excess of a million barrels, as daily average production for the county during the last week in November soared above the 40,000-barrel level for the first time in its history. The bulk of the flush production now being produced from Archer County is coming from small pools in the Ragle and Swastika district, where unusually thick sands are found at the 1100 and 1300-foot levels. The Wilmot-Wilson field is also contributing a number of good sized pumpers, but the "head" has apparently been removed from this section of the county.

Since the development of a series of small and semi-shallow pools in the lower part of Archer County, wildcat activity has become general, and in recent weeks has swept across the county line into the upper part of Young County. Litchfield and Madden uncovered a new pool on the Campbell land in upper Young County early in November, and a second strike was made late in the month by Knight and Hines on the B. Colley land. Wildcatting has also extended over into Throckmorton and Baylor Counties, where semi-shallow sands are known to exist.

Although the South Vernon field, Wilbarger County, offers very little promise of extending over a wide area, it is furnishing flowing wells with an initial production ranging from 50 to 100 barrels of high gravity oil per hour from the 1900-foot sandy-lime pay, while a series of shallow sands exist in the field also. Three pipe lines have been extended from Electra to the South Vernon field, and a fourth line is being built from Southern Archer County by Humble, thereby assuring ample facilities for handling production. Since the development of the South Vernon field has reached large proportions, an effort is being made by wildcatters to pick up similar fields in this general section of Wilbarger County. The output of the field at the close of November amounted to 5,000 barrels daily, with several tests on the pay.

Wortham in for Play

The discovery of a flush production field on the Wortham structure, located mid-way between the Currie and Mexia fields, proved to be the outstanding development during November in Texas, and the initial performance of one of the twin wildcats that proved the existence of a field indicates that this area may have considerable bearing on the crude market within the next two months. The pair of wildcat producers were brought in by the Boyd Oil Company from the regular Woodbine sand pay near the 3000-foot level, and when they first began showing up for commercial wells locations were made in rapid order by nearby lease owners. Within a week after the Boyd Oil Company's wells encountered oil, about 100 locations were ordered drilled as fast as materials and labor could be assembled, and a record breaking drilling campaign is assured until the structure is fully explored.

The Wortham structure affords an ideal situation for rapid development, as seven major pipe lines companies are within 48 hours reach of any part of the structure, and supply companies in nearby fields were carrying excess stocks of oil field equipment that is available without delay. A scarcity of drilling water is the only factor in sight that could possibly hold down drilling operations, and lease owners are already encountering difficulty in buying water, while some of the companies have private water lines connected to the field and are reserving their entire supply for their own operations.

The Wortham field is almost certain of a big flush production, since the first two wells are 8000 feet apart, and about 100 wells can be completed during the latter part of December and the fore part of January.

Oklahoma Average Unchanged

A total of 15,409,480 barrels of oil was recovered from the Oklahoma fields during the month of November. This total is approximately the same as the total for the previous month, showing 418,856 barrels less for November than October, but October has one more day to add to the grand total and as the daily production average for the month was approximately 510,000 barrels per day, the two months are just about the same.

The Tonkawa field led all others in the production of crude oil with a total of 2,958,960 barrels for the thirty days of November. More than three-fourths of this total was recovered from the deep sand wells. The Burbank field came second with a total of 2,139,120 barrels for the month. The Cromwell field of Seminole County increased approximately 65,500 barrels over the previous month of October. The daily average of the field was about 42,000 barrels. The total for November shows an increase of 107,525 barrels over the previous month. Subtracting the extra day of the month just passed with 42,000 barrels production on that day, the above mentioned increase is evident. The largest increase was shown in the figures of the Gilcrease-Papoose pool, a total of 111,050 barrels more oil being recovered in November than the previous month. This is taking out the extra day of the month of October.

Seminole county led all others in number of completions with a total of 69 completed wells for the month. Of this total, 62 were producers, four were gas wells and three were failures. More than half of the flush production of the state added during November came from the completed wells of Seminole County. The major part of these completions, of course, came from the Cromwell field.

There were 254 wells completed during November, a figure 88 wells less than the previous month. Of the total completions, 168 were producers, 17 were gas wells and 69 were dry and abandoned. The 168 producers added 95,694 barrels of flush production.

During the latter part of the month, the Gilcrease-Papoose pool in south central Oklahoma was attracting the greater part of the attention. During the last week in the month, the field had added 6000 barrels to its daily production. The present production of the field is approximately 30,000 barrels per day with several extension wells to be drilled in in the near future.

Cowley County in Kansas

The November story for the state of Kansas is almost entirely confined to Cowley County as far as new production is concerned. The county, although showing but four completions, one of which was a dry hole, added 3285 barrels of flush production to the total. This added production came from the Rainbow Bend pool and from extension wells to that field.

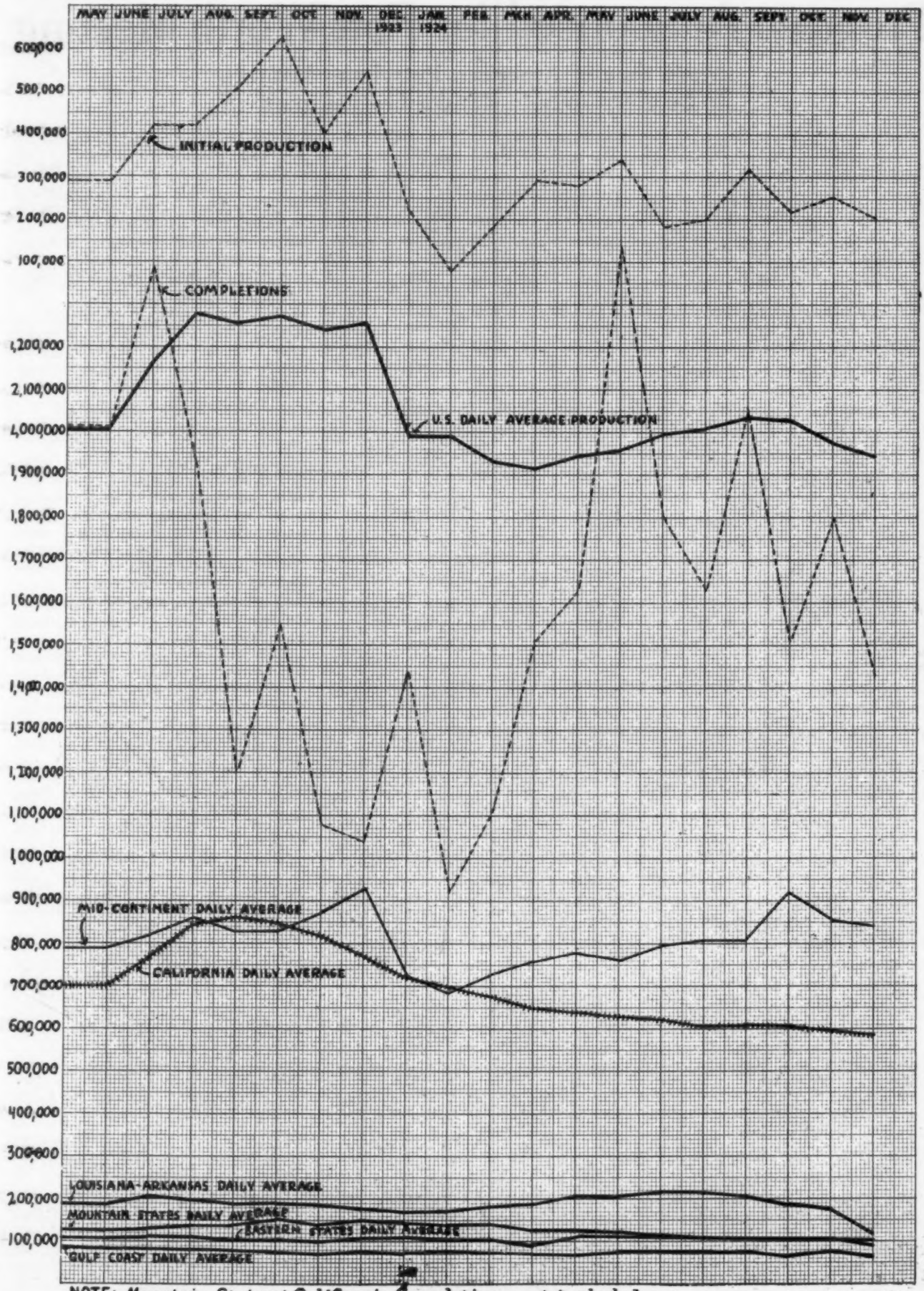
The total recovery of oil in the state for the month of November amounted to 2,540,690 barrels. This total is 68,908 barrels under the total recovery for the month previous, taking into consideration that the month just passed had one day less than October and deducting 86,000 barrels from the October total, which is the approximate daily average for the month.

The Greenwood County fields led all others in the total recovery for the month by sending in a total of 627,480 barrels. Eldorado was second with 507,510 barrels. The Rainbow Bend field, a 1924 field, came third with a total of 256,350 barrels for the month. All the production from the Rainbow Bend field was that of the Waite Phillips-Marland-Independent group. The half interest held by the Waite Phillips Company will soon be running through their new pipe line to Wichita where the recently acquired refinery of the company is located. The other half will be run to the Marland Refining Company at Ponca City, Oklahoma.

All of the older Kansas fields continued to show a small decline in the month's production.

Cowley County, Sumner County and the eastern counties where the new Wilcox sand pools have recently been opened are now the centers of activity in Kansas.

Statistics Begin on Page 66



NOTE: *Mountain States + California Completions not included*

Program Announced for Fort Worth Meeting

Much time of American Petroleum Institute to be given over to standardization question

Fort Worth, Texas, December 3.—Announcement of the final program for the Fifth Annual Meeting of the American Petroleum Institute, to be held here at the Texas Hotel from December 9 to 11 inclusive, has been sent out from headquarters at New York.

Since standardization of oil field equipment is the biggest problem of the Institute at this time much of the meeting is to be given over to that subject. Those who have been most active in what has already been done in standardizing field equipment will appear on the program in addition to several special speakers. A series of group meetings and conferences have been arranged and much of what is accomplished at the meeting will be accomplished through these small gatherings. In addition there will be general sessions where topics of widespread interest will be handled.

Practically all arrangements for the meeting have been completed and indications are that the attendance will be a record breaking one.

The complete program follows:

Tuesday, December 9, 1924

Morning—10:30 A.M. Meeting Board of Councillors. (Crystal Ball Room, 14th floor.) To nominate candidates for election as members of the Board of Directors.

Afternoon—2:30 P.M. General Session: (Palace Theatre.) The President's Address: Thomas A. O'Donnell. Subject to be announced: Charles E. Mitchell, President, National City Bank of New York.

Evening—8:00 P.M. General Session: (Palace Theatre.) Report of Board of Councillors and Election of Directors. "The People, the Government, and the Oil Industry," Amos L. Beaty, The Texas Company. "Who Are the Friends of the People," Bruce Barton, Barton, Durstine & Osborn.

Wednesday, December 10, 1924

Morning—10:30 A.M. Meeting Board of Directors. (Longhorn Room No. 1, Mezzanine floor.)

10:00 A.M. Group Meetings:

Group 1—General Topic: Standardization of Oil Field Equipment. (Crystal Ball Room, 14th Floor).

"Standard Specifications for Steel and Iron Pipe for Oil Country Tubular Goods." Committee Report: J. Edgar Pew, National Chairman. "Dimensional Standards of Cable Drilling Tool Joints," Committee Report: J. T. Kirby, National Chairman. "Standardization of Belting." Committee Report: William Warr, National Vice-Chairman. "Standardization of Oil Field Boilers." Committee Report: A. B. Steen, National Chairman.

Group 2—General Topic: Heating the Home with Oil. (University Club—Metropolitan Hotel Ball Room.)

"The place of Furnace Oil in the Petroleum Industry," O. P. Keeney, President, National Petroleum Association. "The Problem of the Oil Burner Manufacturer," Edward P. Bailey, President, American Association of Oil Burner Manufacturers. "The Sale and Service of Domestic Oil Burners," Wallace Capen, Home Appliance Corporation.

Group 3—General Topic: Problems of Oil Taxation and Accounting. (Cactus Room, 14th Floor.)

"Valuations of Oil Properties for All Purposes," J. L. Darnell. "Income Tax Problems in the Oil Industry," J. J. Cosgrove. "Invested Capital — Realized Appreciation," F. R. Angevine.

Afternoon—2:00 P.M. Group Meetings.

Group 1—General Topic: Improvement of Oil Drilling and Production Methods and Equipment. (Crystal Ball Room, 14th Floor).

"Pumping Deep Wells in California," John Zublin, General Petroleum Corporation. "Deep Drilling," H. C. Cooper, Hope Natural Gas Company. "Cementing Deep Wells," Frank F. Hill, Union Oil Company of California. "Dressing and Tempering Bit Steel in the Oil Fields," Francis B. Foley, Consulting Engineer, U. S. Bureau of Mines. "The Tensile and Collapsing Strength of Seamless Steel Casing," Prof. Harold A. Thomas, Carnegie Institute of Technology.

Group 2—General Topic: Motor Fuel and Motor Lubrication. (University Club—Metropolitan Hotel Ball Room.)

"Report on Motor Fuel Investigation H. K. Griffin, U. S. Bureau of Standards. "A New Method for the Determination of Crank Case Dilution," H. K. Griffin, U. S. Bureau of Standards. "Lubrication of the Automobile Engine." Neill MacCoull, The Texas Company. "Utilization of Motor Fuel from the Standpoint of the Automotive Engineer," J. A. C. Warner, Society of Automotive Engineers. "Ethyl Gas," Thos. Midgly, Jr., Ethyl Gasoline Corporation.

Group 3—General Topic: Problems of Oil Taxation and Accounting. (Cactus Room, 14th Floor.)

Round Table Discussion of following subjects:

"The Value of Standardization of Cost Accounting." "Problems of a General Auditor." "Cost Accounting in Oil Refining and Sales." "Cost Accounting in Oil Production."

Group 4—General Topic: Transportation of Oil by Railroads. (Longhorn Room No. 1, Mezzanine Floor.)

Open Meeting General Committee on Railroad Transportation. General Discussion Railroad Transportation Problems. Discussion of Proposed Changes in Consolidated Freight Classification.

(Note—This group session will be continued Thursday morning, if found necessary.)

Evening—8:00 P.M. General Session: (Palace Theatre.)

"The Geologist and the Petroleum Industry," E. De Golyer, Amerada Petroleum Corporation. "California," D. M. Folsom, General Petroleum Corporation.

Thursday, December 11, 1924

Morning—10:00 A.M. Group Meetings.

Important Note.—The morning on this day will be devoted to group sessions, at which various subjects given below will first be treated in a prepared address by a selected speaker. After each speech, the meeting will be thrown open for general discussion and consideration of the subject.

Group 1—General Topic: Standardization of Oil Field Equipment (Crystal Ball Room, 14th floor.)

"Standardization of Rotary Drilling Equipment." Committee Report, J. F. Lucey, National Chairman. "Standardization of Rig Irons." Committee Report, H. J. Lockhart, National Chairman. "Standardization of Standard Rigs and Derricks." Committee Report, W. W. Fondren, National Chairman. "Standardization of Wire Rope and Manila Cordage." Committee Report, C. C. Scharpenberg, National Chairman.

Group 2—General Topic: Problems in Connection with the Storage and Transportation of Petroleum and Its Products. (University Club—Metropolitan Hotel Ball Room).

"Report of Investigations on Methods of Determining the Vapor Pressure of Gasoline for Transportation Classification," H. L. Shoemaker, Standard Oil Co. of New Jersey. Round Table discussion of an Abridged table for reducing the volume of petroleum products to a 60° temperature base. Round Table discussion on lightning protection. Preliminary statement by Ralph J. Reed, Union Oil Company of California.

Group 3—General Topic: Problems of Oil Taxation and Accounting. (Cactus Room, 14th floor.)

Round Table discussion of following subjects: "Cost Accounting in Cooperage and Other Minor Activities." "Cost Accounting—Transportation of Oil." "Problems in Materials Transferred from Warehouses and Fields."

(Continued on page 55)

Gray Discusses Fuel as Oil Price Basis

Association president takes issue with Standard Company and urges co-operation among producers

By W. H. Gray
President National Association of Independent Oil Producers

SINCE 1920 there has been great confusion in the crude oil price structure throughout the United States and Mexico. There has also been a great difference of opinion between the Mid-Continent producer and refiner and the Seaboard refiner as to what should form the basis for the price structure.

The buyers of crude oil who have had and now have easy access to the heavy crudes of California and who have the possibility of drawing a large portion of their future supply of oil from Venezuela, Colombia and Peru, contend that the price basis should be fuel oil, the price of which to some extent is regulated by the price of coal.

The Mid-Continent refiner and producer, and when I use the word "Mid-Continent" I mean the entire territory stretching from the Rocky Mountains on the west to the Alleghenies on the east, and from the Great Lakes on the north to the Mexican border on the south, have contended and still contend, that the price structure should be based on gasoline content and not on fuel oil. The division of thought between the Seaboard refiner and the Mid-Continent producer has become more apparent.

In 1921 a great effort was made by producers in the Mid-Continent area to get a protective tariff put on imported crude. At that time there were numerous leaders in the Mid-Continent area who did not appreciate the danger that was just ahead of them. They did not fully realize that we were going into a long period of changed conditions, and therefore, they did not put their shoulder to the wheel as they should have done and as they probably would do today if the opportunity offered. It was a remedy which would have succeeded in all probability in saving us a great deal of our misfortunes, however, it is one not available now and I refer to it at this time merely for the purpose of marking the beginning of the difference in thought between the two groups.

It is a matter of history that the Seaboard refiner, together with great concerns owning large concessions and operating large producing properties in foreign countries, principally in Mexico, defeated the effort by Mid-Continent producers and refiners to secure a protective tariff on oil.

Cheap Imported Oil

The result of the constant and continuous importation of enormous quantities of cheap low gravity crude from Mexico, coupled with the improvement of cracking processes to improve the yield of gasoline from these low gravity crudes, gradually but surely forced the crude oil market structure to change from a gasoline basis to a fuel oil basis. It was not, as has been suggested by some students of this problem, the sole result of the development of the cracking process which caused the price structure to change from a basis of gasoline to one of fuel oil but it was the direct result of large importations of heavy oil from Mexico.

The tremendous increase in consumption of gasoline and other oil products in the United States finally absorbed the surplus production of crude in Mexico. However, the industry had not more than staggered to its feet under the deluge of Mexican crude until a phenomenal thing happened in the United States which permitted the Seaboard refiner to continue to maintain his policy of buying crude oil based on a fuel oil market. Seven of the largest oil pools that the world has ever seen reached their peak of production at the same time, the year 1923. Three of them were in California; one of them in Texas; one of them in Wyoming and two of them in Oklahoma.

In passing, it might as well be said right here that the Seaboard refiner cooperated very meagerly in an effort to curb this great avalanche of production. It is true that the Standard Oil Company of California did quite a lot, as did many other California opeartors, but the failure of the Standard Oil group on the Atlantic seaboard to cooperate fully in curbing this over-production was a cource of disappointment and discouragement to oil producers generally throughout the Mid-Continent field.

Competition With Coal

There has never been a time in the history of the petroleum industry for the past twenty years when periods of over-production did not force the crude market more and more into competition with coal. In periods of over-production the price of crude oil has ever been and probably will always be based on the price of fuel oil. Over twenty years ago when the famous Spindle Top pool near Beaumont came in much of it was sold at 3 cents a barrel and then within the short space of fifteen months the price rose to 75 cents a barrel and it was only a short time after that until the great field of Sour Lake was discovered and the price was forced back to 10 cents a barrel. A great deal of oil in Oklahoma, during the Glen Pool days along in 1907 and 1908, sold at 25 cents a barrel and yet the posted price stood at $1.04 in the closing days of 1913, only to yield to that great avalanche of oil which was poured out from the Cushing pool and the price receded to 35 cents in 1914. Today the average price of oil in the Mid-Continent area is about 90 cents a barrel. Notwithstanding the fact that lifting costs have almost doubled and development costs have trebled, the Oklahoma producer is not getting as good a price as he did in 1913 for his oil.

The problem of the Mid-Continent producer and the Mid-Continent refiner is not the problem of the Seaboard refiner. The Seaboard refiner can go anywhere in the world and get his crude. The Mid-Continent refiner must of necessity depend upon those deposits lying within his own territory.

Gasoline Bosses

It is the solemn duty of the Mid-Continent refiner and the Mid-Continent producer to cooperate with each other for the purpose of seeing to it that the price of crude oil is based on gasoline and not on fuel oil for the following reasons:

First: In order to protect the more than 287,000 small wells in this area which cannot be operated and exist on a competitive price with coal.

Second: In order to perpetuate as long as possible the vast investment in pipe lines, tank cars and refineries engaged in supplying this great central section of the United States with its refined products.

Third: In order that the children of this generation and their children's children will not be at the mercy of foreign countries and Seaboard refineries for their supply of petroleum products.

The policy of the Seaboard refinery with reference to price structure has long been known to numerous students of the industry. Last March in addressing the Western Petroleum Refiners' Association at Dallas, Texas, I pointed out the fact that the Seaboard refiner was an international; that he would go to any part of the country and get his supply of oil; that it was a question of transportation with him and a question of price also. However, it has only been recently that these refiners have been willing to acknowledge this fact. The most powerful in this group of Seaboard refiners are the Standard Oil Comany of New Jersey, the Standard Oil Company of New York, the Vacuum Oil Company and the Standard Oil Company of Cali-

(Continued on page 46)

To Know Wortham's Worth in Thirty Days

Rush for flush production will see completion of 50 wells within month; drilling favorable

By Grady Triplett
Staff Representative

Wortham, Texas, Dec. 2.—What effect the Wortham pool is to have on crude oil output and its price structure should be known within 30 days.

By then this newest member of the Balcones Fault zone pools should have 50 wells completed. As they will cover what is considered the possible productive area, they should give an index to what the field will do when exploited.

What these wells reveal will determine the extent of the drilling campaign at Wortham. Sufficient already has been done to warrant the prediction that the field will be drilled more rapidly than any other oil field. At least 100 other wells will be drilling when the ones now started are completed.

Unless the first wells condemn what now appears to be productive territory, this field may come to a time when between 300 and 400 rigs are operating, as executives of all concerns holding leases are set on completing wells during the period of flush output.

Length of the field is fairly well determined, as the Boyd well of the Boyd Oil Company is evidently at the southern limit, while the northeast trend can not go many locations beyond the Wortham townsite, since dry holes exist to that direction, giving the pool about four miles in length.

But the width of the pool can not be known until the first 50 wells have been completed. Even these may not show the deviations of the oil bearing part of the Woodbine formation.

Dry Holes Probable

It seems certain that dry holes will be more numerous than at either Mexia or Powell. Locations now made may never have derricks. Derricks may be torn down, while holes may be abandoned at depths above the Woodbine sand level, due to failures, which are sure to attend a drilling campaign of the class coming to Wortham.

Favorable drilling conditions will bring the flush production rapidly. Without mishaps, a well can be completed at Wortham in 18 days. This allows for cement to set. Few wells, of course, will escape mishaps and the average time for completing wells may run to 30 days.

Allowing a month for each well, there will be 50 wells completed by January 1. It is this upon which a daily output of 100,000 barrels is predicted by the first of the year.

FIELD WORK UNDER WAY AT WORTHAM

Company—	Drilling	Rigs	Derricks	Locations
Atlantic O. P. Co.	..	2	2	..
Boyd Oil Co.	2	7	4	2
Carter & Lytle	1	2	4	2
Farrish-Watts-Collins	..	..	2	..
Gulf Prod. Co.	..	4	3	1
Godley O. & G. Co.	..	2	..	..
J. K. Hughes et al	..	1	..	..
J. K. Hughes Dev. Co.	..	..	1	..
Mrs. J. K. Hughes	..	2	3	..
Hapgood et al	..	..	1	..
Kirby Pet. Co.	1	4	2	3
Magnolia Pet. Co.	1	4	6	..
Marland Oil Co.	2	3	7	4
R. P. Penna	1	..	1	..
Pure Oil Co.	..	2	3	..
Rio Bravo O. Co.	..	..	2	4
Shaffer Oil & Ref. Co.	..	1	..	..
Simms Oil Co.	..	4	5	4
E. L. Smith Oil Co.	..	..	2	..
Totals	8	38	48	20

By the time the area reaches this stage, it will be possible to determine its effect on the trend of total production for the United States, as well as the reflection on the crude price structure.

Peak production for the field should be reached in February. By that time, the whole area of the field, as it is now considered, can be drilled. It remains to be seen how nearly the field will bear out present ideas and hopes. The rush of drilling will determine the extent of the structure at an early date, although it is likely to prove a costly method of proof.

Students of the Wortham area in particular and the Balcones Fault in general, believe the field will extend from the Boyd Oil Company Boyd No. 1, a well admittedly over the fault, to north of the Penn well on the McCorkle lease, roughly, four miles. Width of the field must be determined by drilling. A liberal estimate is that it will average a half mile.

Possible Area

The area of the field should run between 800 and 1200 acres. Drilling, however, is not likely to be confined to this area, since no one is waiting for proof before starting wells. Another factor to bring the number of wells to a high total is the fact that the eastern part of the Wortham townsite seems to be in the best part of the field. Town lot drilling will result in the number of wells going much higher than would otherwise result. The low estimate on the number of wells to be drilled is 400, while 600 is the highest estimate. Either of these may be wrong, as only the facts revealed in the first 100 wells can determine final drilling of the sector.

East of Drilling

Underground conditions are favorable to quick drilling at Wortham. Alternate beds of gumbo and shale offer no obstacle to fish tail bits. In fact the fish tail bit has been able to go through the rock formations in some of the wells. The Austin chalk is neither as thick nor as hard at Wortham as it has been found at other points along the Balcones Fault zone. The difficult surface rocks, which gave trouble at Mexia, have not been encountered in the drilling done thus far at Wortham.

Subsequent drilling may disclose more difficult drilling, thus extending the time for completing wells. Many contractors, doubtless, will use roller bits, even for the hard formations as now known. Others will consider it better practice to use only fish tail bits.

The first contracts made in the field were for $3 a foot, the well owner to furnish water and casing. Unless the rush of locations goes so far that rigs are scarce, this price likely will continue, as the contract price in some

Rig going up in back yard at Wortham

Baptist Church at Wortham, where the site has been leased

other parts of the state is as low as $2.50 a foot.

Other than the surface pipe, only one string of casing is necessary for completing a well at Wortham. The holes are carried to the top of the sand, where 6⅝ casing is landed, cemented and allowed to set before drilling in.

Another practice that is likely to be general but not universal at Wortham is the completion of holes without the customary standard rig. This was adopted at Powell in many instances. The rush of drilling and difficulty of getting rigs equipped with cable tools led to this and these conditions seem sure to follow at Wortham.

This practice, however, will be one of choice, rather than saving, however, as the standard rigs, when used for completing holes, can again be used for pumping, once the underground pressure is spent.

The Simmons well of the Boyd Oil Company was completed with rotary tools, while the Boyd well was completed with cable tools, after the rig had been standardized.

Equipment Plentiful

So far as equipment is concerned, the Wortham field came at a propitious time. At Powell to the north, idle rigs were waiting for another oil field. Many wells are being given up at Mexia to the south. So the Wortham area will get the benefit of these conditions.

With the exception of the Marland Oil Company of Texas, the larger concerns holding Wortham acreage went through the drilling rush at Powell, so they have whatever excess of material that field did not use to turn to Wortham.

The several supply companies have equipment stocks and stores at both Mexia and Corsicana. Just now these stocks are being drawn on rapidly but there is no danger of shortage of equipment when the supply companies are prepared to handle the situation with bases of supply and distribution at either side of the new pool.

Both Mexia and Corsicana are within easy truck haul of the field. Already the roads from either direction are lined with trucks and wagons carrying all manner of material. Even light derrick timber is being hauled from Corsicana, as the lumber companies were cleaned out in the rush that preceeded the completion of the first well.

Wortham, Texas, Dec. 2.—The Simmons well gauged 3570 barrels through inch and a half choke twenty-four hours ending Tuesday at seven o'clock. The Boyd well is making 900 barrels daily.

Penn well on McCorkle will be drilled in Friday. This well picked up Woodbine at 2903 feet, same as the Simmons well, but did not show oil and gas as did the Simmons.

Kirby Petroleum well on Beal tract drilling below 2820 feet with formation getting harder but reports are that it has not picked up Austin chalk yet. This would indicate this well west of fault and chances for big production doubtful.

The Houston and Texas Central railroad traverses the field. This concern will drill several wells along the right of way. The Trinity and Brazos Valley road serves the area, coming into Mexia. Both these lines offer direct hauls out of Houston on the south, while Dallas and Fort Worth are centers of oil field material to the north.

Contrary to the usual procedure, lease speculation preceded the completion of the first well. Geological data made the area so favorable that the oil companies began acquiring acreage in advance of oil. The result is that the area is held by concerns, whose executives know the type of field they must handle. Since it is one which rewards the first wells with liberal flush output, this is another factor in making for immediate drilling of all available acreage.

Facilities Sufficient

There are seven trunk pipe lines, Gulf, Texas, Humble, Magnolia, Pure, Prairie and Sinclair, either of which can have a line in the field within two days. The Prairie already has its line to the Simmons well, having laid it before the well was completed. By the end of the week others of these lines either will be building or plans will have been made for entering the new area.

These lines were built either for handling the flush oil at Mexia or at Powell. Since each of these older fields is on the wane, any output Wortham may have can be cared for through the trunk line facilities or by storage already standing in the Mexia and Powell sections. At Mexia there is much empty storage, while at Powell, stocks are being reduced.

Indicative of what may follow in other instances, the Boyd Oil Company headed by Col. E. A. Humphreys, who drilled the first Mexia well, has begun construction on ten 55,000 barrel steel tanks, which are to be filled with Wortham crude. The intention of officials of this company is to hold the oil for higher prices.

Water Serious Problem

Lack of boiler and drilling water is the most serious handicap the field faces. The Pure Oil Company already has completed a 4-inch water line from a surface reservoir at Mexia, while the Marland Oil Company of Texas will lay a 6-inch water line to Mexia and

Unloading pump, shipped in to Wortham by express

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will draw water from wells drilled during the Mexia rush. The Boyd Oil Company has a dam across Tehucana creek and has a fair supply of water from a light rain last week.

The Humble is laying its own line. Unless rain relieves the situation, all companies will be forced to lay water lines, some going perhaps as far as Powell to get supply.

Fuel Supply

Both gas and oil will be used for fuel. The wells now complete or drilling used oil under the boilers. But some of the drilling to be done this month will be on gas wells, for which 80-foot derricks have been built. Gas is found from 1200 to 1500 feet over the field.

It was a gas well which directed attention to the region now known as the Balcones Fault zone and a queer twist of fate is that this well was drilled within the town of Wortham, which is last to be favored by oil production. In 1912 a city water well struck gas output of 65,000,000 cubic feet around 1200 feet. Drilling that followed this resulted in the discovery of the gas field at Mexia. Then in 1920 the Mexia oil field came on the map. After that came Currie, Powell and Richland, all fault pools, similar to that now to be drilled at Wortham.

If one stood on a derrick at the end of either of these pools, he could see to the end of the next pool.

Estimates on the peak flush output of the field run from 50,000 barrels daily to 200,000. The high figure comes, of course from optimistic sources, although it is possible that the output of the field will reach that. The 50,000 barrel estimate seems too low, even if the field is not as extensive as now indicated.

It is possible that the pool will have daily output of 100,000 barrels early in January. By February 1, it should be even higher. Between February 1 and March 1, it should reach the peak. After March 1 the decline should begin.

The rapid drilling already begun is behind these predictions. The 50 wells to be going down this week, should establish the limits of the field. Following them will come still more wells, whose completion will take off the flush output in rapid order.

Inside locations as well as line wells will be drilled at once. The experience of companies in both Mexia and Powell is that inside wells should be drilled during flush production, as the decline is too rapid to warrant drilling after the pumping period begins.

Since the completion of the two wells, lease prices have run to high figures. Evidently little acreage is available. Carter and Lytle, holders of the largest acreage among independent operators, last Friday sold 15 acres out of the J. J. Manning tract west of the railroad to the Simms Oil Company for $75,000 cash and $35,000 to be paid in oil. The Simms Company will drill every location on the lease at once.

Funds from this transaction will allow Carter and Lytle to continue development of their other properties.

The Simmons well of the Boyd Oil Company had initial output of 12,000 barrels, total depth 2961 feet. The Boyd well of the same company came in for 1500 barrels Nov. 22 at 3012 feet and may be drilled deeper. The Simmons well was completed Thanksgiving day and drew an immense crowd, as the event had been advertised. Pipe line connections were completed in advance. The well, however, was allowed to flow for a time before it was turned into the flow tanks.

The Simmons well logged the Woodbine formations at 2903 feet. It began to show oil when drilled four feet deeper. It was completed in a second series of the Woodbine.

The Boyd Oil Company's No. 1 Simmons at Wortham

Marland Contemplates Pipe Line to Santa Fe

Fort Worth, Texas, Dec. 1.—Surveyors have started work in selecting a route for an eight-inch pipe line contemplated by the Marland Oil Company of Texas from its tank farm site in the Big Lake field, Reagan County, to San Angelo, a distance of approximately 75 miles, in order to take advantage of an attractive freight rate offered by the Santa Fe Railroad in transporting crude to Marland's water terminals at Texas City, Texas. Officials of the Marland interests are scheduled to arrive in Texas before the close of the present week, and upon their arrival a decision will be rendered as to whether the pipe line will be built to the nearest point on the Santa Fe Railroad. In the event the line is built it can be used later on as a link in a carrier that will be eventually constructed to transport Reagan County crude via pipe line to the Gulf Coast. Since negotiations have been under way between Marland and Humble for the extension of an eight-inch line from Humble's main Central West Texas pump station at Comyn, Comanche County, to the Big Lake field, a distance of about 200 miles, it is of interest to note that the proposed Big Lake-San Angelo line would be in a direct line to tie into Humble's transportation system to the Coast.

Marland has been buying crude from the Big Lake Oil Company and the Texon Oil & Land Company since last October, and a contract becomes effective this month whereby a maximum of 10,000 barrels daily will be accepted and purchased from the latter two concerns by Marland for one year, then at the expiration of the first year the purchases will be increased to 20,000 barrels daily for the duration of the life of the leases. Marland is now shipping a large portion of its crude purchases in the Big Lake field in tank cars via the Orient Railroad to Texas City and paying a tariff of $.8236 per barrel plus an extra charge of $10 per car. This freight rate is considered excessive by Marland officials. The Santa Fe has a maximum rate of $.746 per barrel from San Angelo to Texas City, and is reported to have offered to make a special rate of 16 cents per hundred pounds, provided the crude is delivered to loading racks at San Angelo, while the Orient Railroad is contemplating a compromise rate of 19½ cents per hundred pounds from Big Lake to Texas City.

Three tanks of crude stocks, amounting to approximately 160,000 barrels, were sold last week by the Big Lake Oil Company to Marland for a reported consideration of $1.25 per barrel, but the crude is to remain in the Big Lake Oil Company's tanks until steel tankage now being erected near the field by Marland is ready to receive the oil. The Big Lake Oil Company's crude stocks at the close of November amounted to 25,531 barrels, while the Texon Company's stocks were reported at approximately 35,000 barrels, making a total of more than 200,000 barrels of oil in the field.

A semi-shallow gas field was discovered in the southwest part of Callahan County recently by L. D. Prewitt and associates of Galveston on the T. Windham land, section 348, and four miles northeast of the town of Oplin. This well made an initial flow of three million cubic feet of dry gas from sand at 1420-35 feet, and is considered an important strike, since it is only about four miles southeast of a rank wildcat oil producer brought in. last June by Dudley Oil & Gas Company on the Hugh Moore land, section 9, S. P. Ry. survey, block 6. The Moore well flowed several heads of oil after drilling sand at 1834-37 feet with an estimated production of 30 barrels of 34 gravity oil, and after considerable water trouble was completed as a 15-barrel oil pumper. Prewitt et al are the largest lease owners in this section of the county and began seven wildcat tests shortly after the Moore producer made its initial flow. Three of these tests have since been abandoned after missing the pay sand, while two tests on the George T. Crane lease are drilling a short distance to the south and west of the discovery well.

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SINCLAIR OILS

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The accompanying discussion takes up the possibilities of the torsional balance which has already met with success in the coastal country. In the November 28th issue of The OIL WEEKLY the author described the Seismograph.—The Editor.

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The development of the instrument is based upon the potential theory and every principle involved is set out clearly in theoretical mechanics, and I begin with linear kinematics. The general problem of rectilinear motion, with reference to this subject requires the integration of differentials—the calculus, but the subject may be understood without it.

Consider a point moving in a straight line. If throughout the whole motion, equal spaces are always passed over in equal time, the motion is said to be uniform, or that the velocity is constant. When velocity is varied, the rate at which velocity varies is called the acceleration, which may be positive or negative, and the rate of acceleration is always denoted by g. It is known from observation and experience that under these circumstances, the acceleration of a falling body is constant at any given place and equal to about 32 feet per second. At a location where g equals 32.16 feet, a body starting from rest (neglecting air friction) falls in the first second, g divided by 2 equals 16.08 feet, and the velocity at the end of the second is 32.16 feet per second. the velocity having accelerated from zero to 32.16 feet per second. In two seconds, the body falls a distance of 16.08 times 4 equals 64.32 feet, and the velocity is 64.32 feet per second, it having had 32.16 feet of velocity added to it during the second second and so on, adding 32.16 feet each second to the velocity; during the fifth second, the space fallen through is 144.72 feet—all at the same locality.

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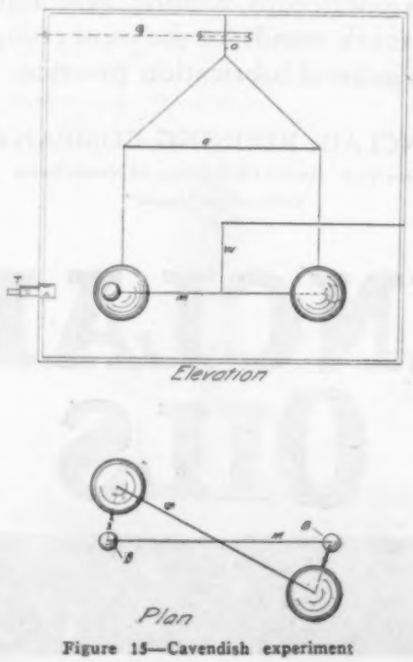
Matter Attracts Matter

Again referring to Sir Isaac Newton's initial work on mechanics, he showed that the behavior of bodies on the surface of the earth, as well as the movements of the planets around the sun could be explained on the assumption that every portion of matter attracts every other portion of matter, and that the stress between them is in a straight line and proportional to the product of their masses divided by the square of their distance apart, and tested the truth of his law by showing that it correctly accounted for the force necessary to retain the moon in her orbit, giving rise to the law known as Newton's Law of Universal Gravitation.



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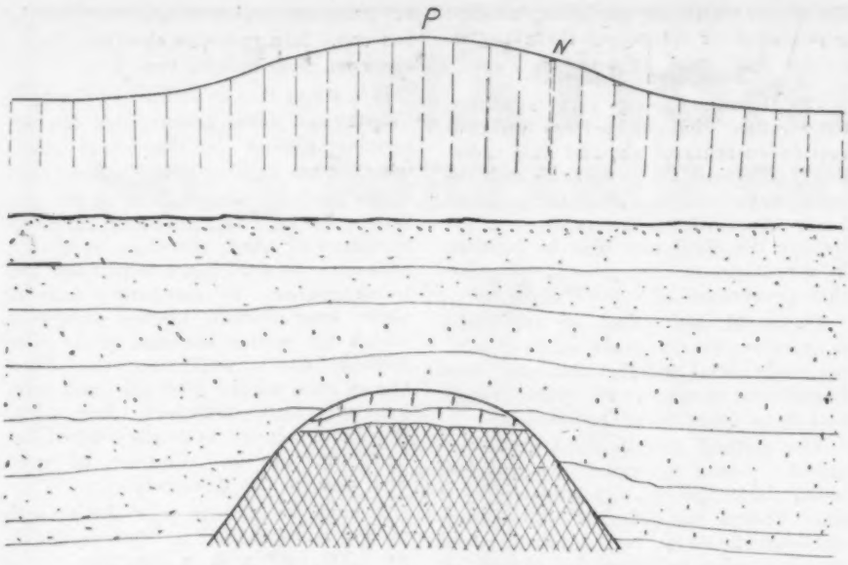

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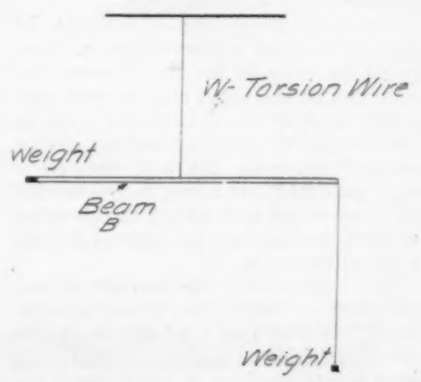

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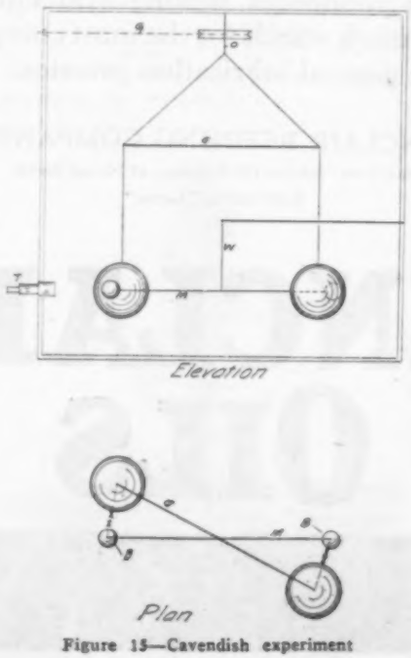

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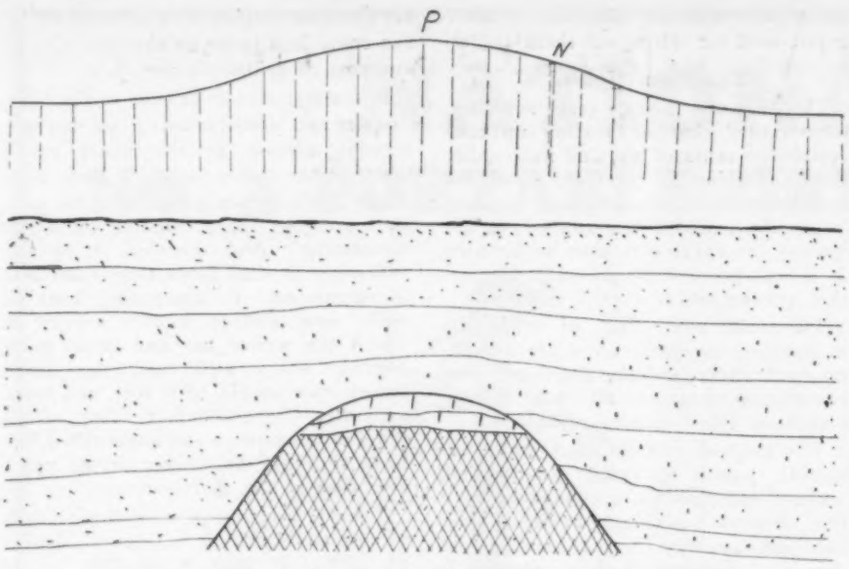

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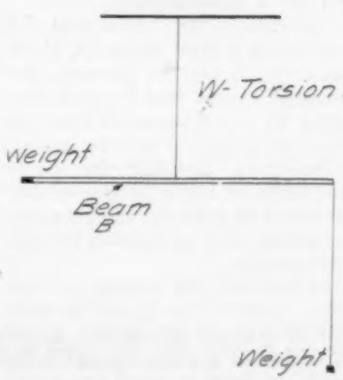

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forces are too small and the angles too small for correct delineation.

It is these horizontal components that are measured by the instrument of Eotvos.

Method of Operation

In a horizontal plane through a point on a niveau surface, there is then, one direction in which gravity increases from that point most, and the amount of increase in one centimeter is called by Professor Eotvos, the gradient of gravity, represented by him in lines of equal proportion to the gradient and in direction with that of the greatest increase in gravity. Then, a beam suspended to rotate freely, will turn toward the less warped section of the niveau surface, because of the horizontal gradient exerting a greater force in that direction.

And where in another locality, the niveau surface is spherical, due to uniform density and uniform mass attraction, there is no horizontal component, no gradient of gravity, and no force that rotates the beam.

It is quite possible by difference in gravity, to locate a denser subsurface mass by the simpler method of gravity determination, using the pendulum method with the new metal invar, particularly, and, when sufficient readings have been taken, to define a niveau surface.

To measure the horizontal directing force, then, the instrument is a torsion balance, similar to that of Cavendish, (but without the two larger weights used for attraction, however) but with the weights suspended at different heights, Figure No. 17. The beam is suspended by a fine platinum-iridium torsion wire, W, one and one-half thousandths of an inch thick and about twenty-one inches long, and the two weights are shown at different heights.

The platinum-iridium wire is the torsion wire that twists when the beam is moved in a horizontal circular plane, and that swings the beam back to normal when the moving force is removed, and the instrument gets its name from this wire.

A small mirror is fixed on the balance and on the chest of the instrument a scale, receiving a reflected beam of light from the mirror on the beam, is read through a telescope.

Then, orienting the instrument by setting it along a true meridian, there being an azimuth for the purpose, the direction of the beam may be read, corresponding to the horizontal gradient component of gravity; and by taking several readings, dividing the circle into quadrants, or more, and revolving the instrument as a whole, the accuracy of each reading may be checked by subsequent readings.

For convenience the instrument has two beams, Figure No. 18, set at right angle, so that two readings are taken at one position at the same time; readings are taken from a north-south position and then at angles of 120 and 240 degrees with the meridian; a circle is provided for setting off these angles.

Equipment Housed

The balance being very sensitive, temperature changes, setting up convection currents of air, and heat radiations, affecting its accuracy, and the inclosing chest is insulated against heat. And, where the sun's rays are intense the chest may also be inclosed in a heat proof cabin or vault for further prevention of outside influence.

To avoid any effect of terrestrial magnetism, the parts are made of non-magnetic metal and the aluminum used is sublimed to remove all traces of iron, nickel, or other magnetic metal.

The method may be used for ascertaining points of equal gravity and, when these points are connected by a line, Eotvos has called the lines isogams—an analogy to contours. And density being indicated by gravity, it follows that salt domes, plugs, lenses, and subsurface matter of local density greater than surrounding matter, will have a niveau surface corresponding to localization of density, and that isogams will surround and indicate such mass. In the case of dikes, anticlines and faults, isogams will parallel the lines of greatest density and closest proximity to the surface.

Unlike the seismograph, the torsional balance is not affected by a blanket rock formation intervening between a denser mass below, unless the blanket rock formation is elevated immediately at the instrument to set up interference due to proximity. The instrument though, is subject to other conditions that may produce negative results.

If an anticline is imposed by subsequent deposition and folding, unconformably over a syncline, the upper structure may contain no oil while a lower adjacent anticline may not be located by the instrument due to mass attraction interference from the upper. And there are other conditions also that will prevent, in a similar manner, accurate determination of subsurface local density and proximity.

Cannot Find Oil

In practical operation, these instruments do not find oil, but subsequent drilling must be done to prove the locations and the use of instruments is therefore an added expense.

The value as between European use and use on the Gulf Coast is in favor of European because our domes are surrounded by soft, less dense masses of alluvial deposits, while European domes are generally surrounded by rock in which drilling is far more costly than in the material surrounding our domes. The top of European domes, however, generally has no rock. And by way of note, the use of the torsional balance in the European class of dome is toward locating less dense masses—salt surrounded by rock, while ours is the reverse.

And, especially since the new type of gasoline engine driven rotary rig has come into favor on the Gulf Coast, our cost of drilling is very low.

It is a fact that in drilling in the Gulf Coastal salt dome country, we can determine almost at the grass roots whether our drilling is being done over a salt dome or not, so close to the surface are the characteristics of dome formations. And therefore it is not necessary to drill more than 1,000 feet to determine. In comparing logs of wells over sixteen known domes in which the writer has had to do with drilling, every well over the dome shows such within 1,000 feet, and more generally above 500 feet. And off of the dome, nearby wells show tilted key beds that are an indication of uplift and also of the direction.

I have before me now the records of five wells drilled to average depths of 1,200 feet with a gasoline rig in which all direct drilling costs total $1,726.00. If the cost of operating instruments over an area of equal size equals or is greater than drilling of this kind, then, because drilling must be done following a positive instrumental survey, of course the choice of the operator is always the drilling programme.

Due to low drilling costs, and to finding new domes, by sulphur water, gas seeps, elevations of ridges, and other similar surface indications, followed by either drilling, or by an instrumental survey, and then by drilling, the search for new domes has been stimulated. Particularly in the vicinity of Damon, unsuspected domes by drilling have been defined in such number and proximity as to be astonishing.

And, after a dome is located, the new type of rotary rig is set about to define the dome, and if there is no oil on top, then deep drilling around the sides is carried on to locate oil bearing sands against the salt.

*Reference: Aun. d. Physik und Chemic, 1896-59-354.

Holt Manufacturing Company Establishes New Branch

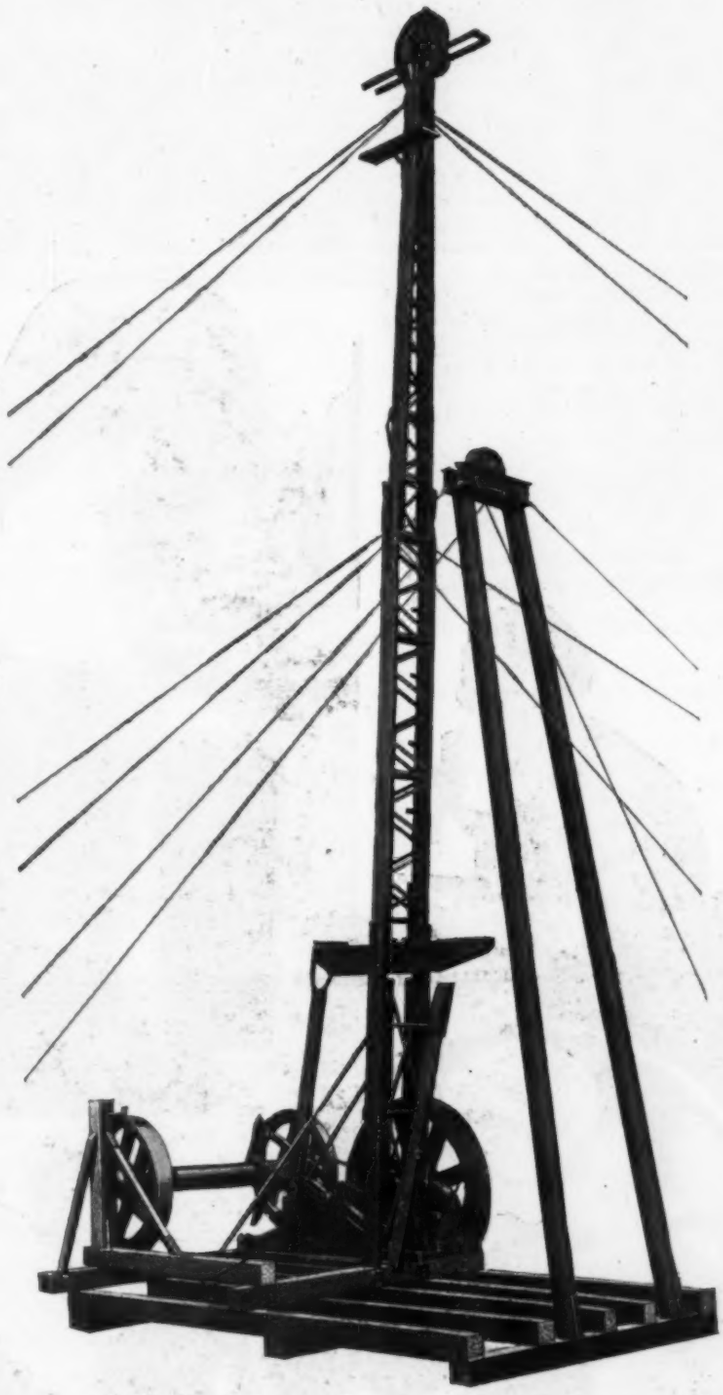
Peoria, Illinois, Nov. 29.—Distribution of Holt "Caterpillar" Tractors for the western part of Missouri and the entire state of Kansas, is now in the hands of The Weber Implement and Automobile Company, Kansas City, Missouri. This information was recently sent out by The Holt Manufacturing Company, Peoria, Illinois.

The Kansas City office will be under the management of R. R. Powers, formerly district manager for the Holt Manufacturing Company in that territory.

This office greatly facilitates the sale and distribution of "Caterpillars". It is equipped to supply the promptest service and the cooperation to all old as well as new users of "Caterpillar" Tractors.

NATIONAL

NO. 3 PORTABLE DRILLING RIG



Rated Capacity
3500
Feet

Clutch Drive

Steel Mast,
Bull Wheels
and Walking
Beam

THE NATIONAL SUPPLY COMPANIES

Say you saw it in The Oil Weekly

Laboratory as Unit in Producing Company

One concern maintains extensive research division in connection with operating department

By A. R. McTee
Staff Representative

SO important has a knowledge of fossils become that many oil companies are supporting departments of geology with extensive laboratories in order to put the finding of oil on a scientific basis. It is the purpose of this discussion to show how one big company uses its laboratory with respect to the rest of the organization, and to point out the laboratory as another ramification in the attempt to discover petroleum.

A core, which at the well might fail to show "signs" of oil and thereby be relegated to the background as worthless, in the laboratory under scientific observation may give up information of inestimable value. It may reveal facts of sufficient importance to justify an extensive drilling campaign, or it may be the basis for a decision to suspend operations. Upon analysis, cores that do not show oil possibilities are often responsible for as much information as those that give favorable indications.

The Laboratory in Operation

Upon receipt of a core sample at the laboratory of The Humble Oil and Refining Company, the first step in handling the sample is to give it a number. Then the sample is entered by number in a record book which gives the name of the company sending in the sample, and the name of the well and the depth from which the core is taken.

The next step consists of testing the sample for oil and then titrating it for chlorine. The oil test which is made with ether indicates the presence of oil varying from a slight trace to showings large enough to make a well. By means of the chlorine test the presence of salt is detected. This information usually denotes one of two things in the Gulf Coast, the presence of salt water or proximity to a salt dome. Either one may be of great importance to a company drilling for oil.

When these two tests are completed a portion of the sample is put in water and allowed to soak until it breaks up. Then it is washed several times until all the mud is removed.

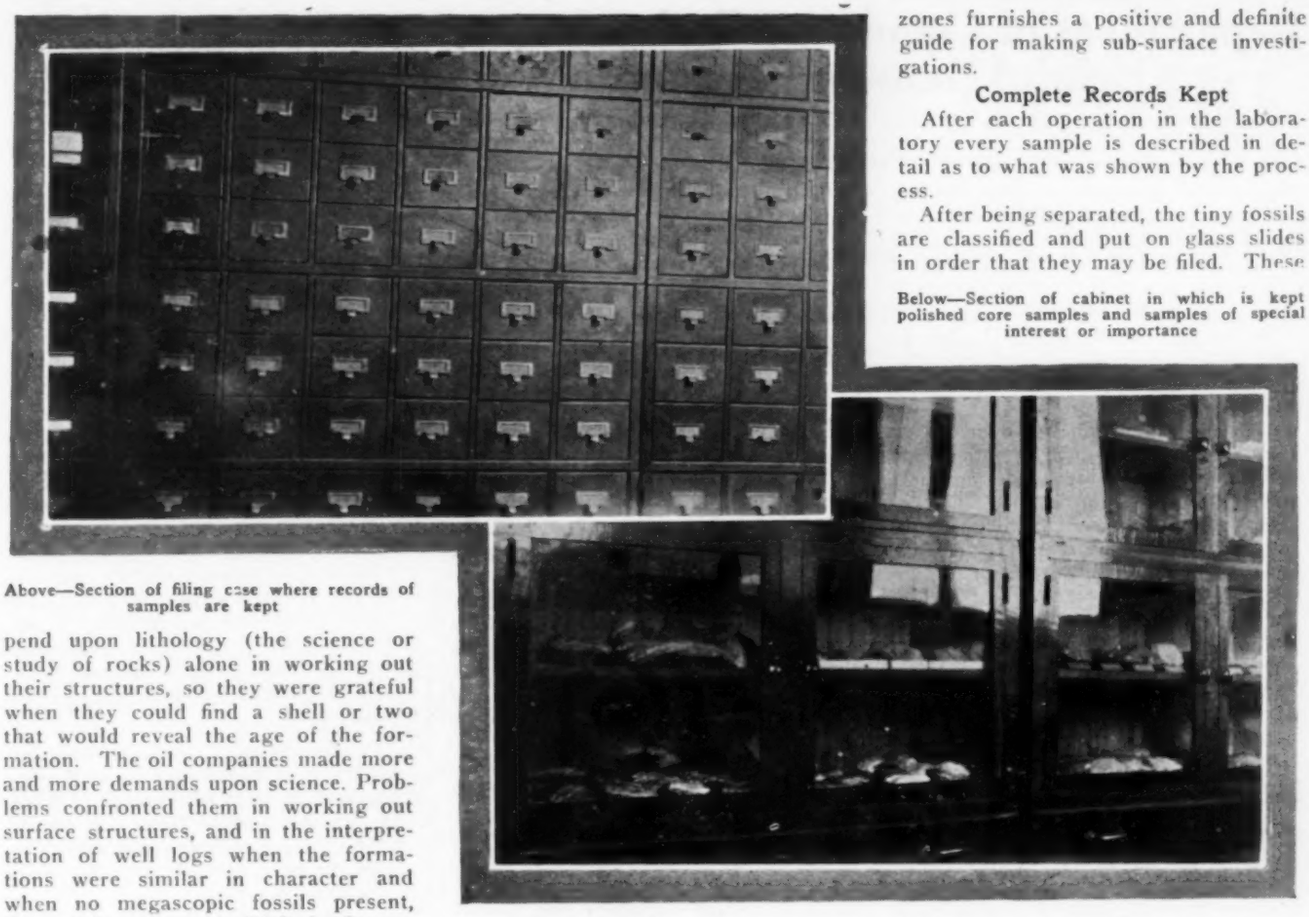
Samples of the washed material are then examined for foraminifera. These minute animals are, in reality, fossils. They are studied and classified according to the geologic age in which they lived.

Value of Paleontology

Concerning the importance of this phase of the work, Miss Alva C. Ellisor, paleontologist and geologist, in charge of the Humble laboratory, has the following to say:

"Paleontology, the study of ancient life, has long been used by geologists in their efforts to determine the age of the strata of the earth. When the oil companies began to employ geologists to help them in their quests for more oil, many of these geologists knew nothing about paleontology but they soon learned that they could not de-

Personnel of the Humble Laboratory. Reading from left to right across the top: T. E. Morrison, laboratory assistant; Emma Jane Coffman, assistant paleontologist; F. W. Rolshausen, chemist. Lower right-hand corner, R. C. Paul, who washes samples. Center, microscopic fossils from the Cretaceous, one of the producing horizons in the Gulf Coast



Above—Section of filing case where records of samples are kept

Below—Section of cabinet in which is kept polished core samples and samples of special interest or importance

pend upon lithology (the science or study of rocks) alone in working out their structures, so they were grateful when they could find a shell or two that would reveal the age of the formation. The oil companies made more and more demands upon science. Problems confronted them in working out surface structures, and in the interpretation of well logs when the formations were similar in character and when no megascopic fossils present, the problems were multiplied. It was then discovered that in the sands, clays, shales and limestones were minute fossils which could be obtained by washing the said sands, clays, shales and limestones. These minute fossils, ranging in size from that of a pin point to a small sand grain, when studied under a microscope reveal beautiful and highly ornate specimens of many species.

"Foraminifera are very valuable in sub-surface geology where the surface beds do not reveal the sub-surface structure and where the formations encountered by the drill are similar in character. These foraminifera are nearly always present and in a small sample a large assemblage of various species is usually present. In drilling, any large fossils present are usually broken by the process of drilling, and in the usual small core sample only a very few large fossils are found. For these reasons the microscopic fossils have a decided advantage.

"About three years ago when a few of the oil companies in the Coastal Plain of Texas discovered that foraminifera could be obtained from well samples and used successfully for age determination and correlation of their wells, most paleontologists were skeptical because foraminifera had a very long life range, most of them persisting from a rather early geologic period up to the present time.

"After studying thousands of samples from an extensive geographic area and over several geologic periods, I find that these foraminifera have a very limited range, that each formation has definitely characteristic species which are not found in other formations, and that even the formations can be divided into zones with species that are limited to each zone."

It is obvious from Miss Ellisor's remarks that these minute fossils can be made of inestimable value in identifying different formations in any Gulf Coast field. The fact that different species of foraminifera are grouped in zones furnishes a positive and definite guide for making sub-surface investigations.

Miss Alva C. Ellisor, paleontologist in charge of the laboratory of the Humble Oil and Refining Company

Complete Records Kept

After each operation in the laboratory every sample is described in detail as to what was shown by the process.

After being separated, the tiny fossils are classified and put on glass slides in order that they may be filed. These slides are catalogued according to the age of the formation which the fossils on the slides represent, and then the slides are preserved in proper containers. From these slides it is possible to establish the geologic age of every formation passed through, and from this knowledge it is only one more step to a direct correlation of producing strata.

A part of the original sample is put into a small glass bottle. The bottle is catalogued and then filed away in a steel cabinet. Thus the laboratory keeps a complete check on both the analysis of the sample and a part of it as it comes from the well.

Laboratory work is especially valuable in determining burned cores. As cores are taken from the core barrel they are frequently hard to identify and may be very misleading. Cases are on record in the laboratory where the core gave every evidence of coming from a very hard formation, but when a very thin section of it was examined, it was found to be a fusion of sands.

A burned core, of course, is one that has been burned by the barrel while the core was being taken. In hard formations friction generates heat which in turn burns the core. This often results in a fused mass which cannot be recognized except upon analysis, and if the burning has been very bad, even a chemical analysis will not be of any value. However, the analysis will show whether or not the core is burned,

Department of Commerce Gathers Helpful Data on Foreign Markets

Washington, D. C., Nov. 29.—Activities of the petroleum division of the Department of Commerce, now a section of the minerals division, during the fiscal year ended June 30, last, are discussed in detail in the annual report of the Bureau of Foreign and Domestic Commerce, just submitted to Secretary Hoover by Director Julius Klein.

During the summer of 1923, the report states, because of the overproduction of crude petroleum in the United States, a large number of requests were made on the division for assistance in disposing of both crude petroleum and petroleum products abroad. In this connection, it is declared, the division has constantly pointed out to the trade the importance of allotting a certain portion of the domestic production for export. Continuing its review of the department's petroleum activities, the report states:

"Specialized statistical data were prepared on specific requests from various oil companies, as well as for general distribution. Compilations of the petroleum trade statistics of individual countries were made, as well as special compilations of United States statistics in cooperation with the statistical division. In cooperation with the commercial intelligence division, trade lists were improved and a considerable number of new lists prepared. The chief and assistant chief of the division attended the First Annual Petroleum Exposition and Congress at Tulsa, in Oklahoma, in October, and visits were made to some of the leading exporters in that territory.

"The special 'country lists,' which were begun the preceding year, by which information was obtained as to the particular countries in which each American exporter is interested and the special products manufactured, were extended and proved of increasing value. Among the 90 special circulars issued, the following may be considered representative subjects: 'Germany's supply of petroleum and allied products,' 'The outlook for petroleum trade of France,' 'South China market for paraffin wax,' 'Taxes on petroleum and petroleum products in Mexico,' 'Egyptian Government general specifications for oils,' 'Petroleum consumption in Japan, 1923.' A series of reviews covering the petroleum trade of the principal foreign markets during 1923 and the outlook for 1924 was prepared by the bureau's foreign offices and published partly in commerce reports and partly in special circulars. Several series of periodical circulars were begun, such as the 'Monthly petroleum shipments from the Tampico district, Mexico,' 'Monthly imports and prices of petroleum products in Argentina,' 'Monthly reports on the petroleum Market in Belgium,' similar reports for Italy and other countries, etc. Representative commerce reports articles covered 'A review of petroleum developments abroad during 1923,' 'Kerosene trade of the Orient,' 'American petroleum export trade during 1923,' and 'The current trend of German petroleum trade.'

"To the series of trade information bulletins were added surveys of the petroleum industries of Poland, of Peru and Ecuador, and of Japan. A survey on the industry of Russia was also completed, to be published after the close of the fiscal year.

"A total of 142 trade opportunities for the sale of American petroleum products abroad were handled by the division during the year.

"The great value of this service is demonstrated by the notable concrete results that have been reported by various firms. The division at Washington replied to 3134 inquiries during the fiscal year.

"The division has begun the preparation of a series of commodity surveys covering the market for gasoline, kerosene, lubricating oils, and other individual petroleum products throughout the principal countries of the world. The special statistical service of the division is being constantly improved and expanded. Special attention is being given to the revision and expansion of trade lists in cooperation with the commercial intelligence division. A periodical price-information service has been inaugurated, one feature of this being a quarterly report on gasoline prices in all principal foreign markets."

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a fact which cannot always be determined on the derrick floor.

Other Tests Made

Work in the Humble laboratory is not confined to minute fossils alone. Water analyses are frequently made, as are tests on different minerals.

The staff and equipment are exceptional. All members of the laboratory personnel are trained experts. One is a graduate chemist from Rose Polytechnic Institute, Indiana, with much postgraduate work to his credit; another has had training in chemistry at the Texas Agricultural and Mechanical College, supplemented by several years' work in the oil fields. Miss Ellisor who has charge of the laboratory, is a graduate paleontologist from the University of Texas, and her assistant was trained in the University of Oklahoma.

It has been the aim of those directing the laboratory, to make a specialty of sub-surface investigations. During the three years of research in the laboratory reports have been made covering all Texas fields, North and South Louisiana, Arkansas, Oklahoma, and northern Mexico.

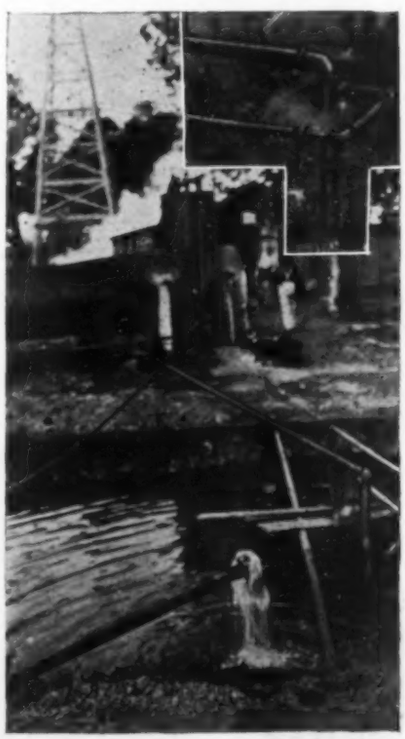
Steam Injector Makes Effective Water Pump

When the water gets low in the pit, where they are drilling Hankamer 4 in the Sour Lake field, fireman J. L. Marble turns a steam cock and goes about his other duties, knowing the supply will be built to the proper level shortly.

He has a device for pumping a water well by vacuum, caused by injecting steam from the drilling rig boiler into the piping from the well. Once the water flow is started, the amount of steam necessary to lifting the water is trivial.

The water well on this lease is between 40 and 50 feet deep. A 2-inch pipe from the water level discharges into an open pit nearby. A steam line from the boiler enters this pipe at the ell. When steam is turned on, it discharges through the water pipe, toward the outlet at the pit. This creates sufficient vacuum to lift water from the well.

Water from this open pit is used for the boiler, as well as for the rig.



Above—the pipe arrangement at the surface of the well, showing how steam is injected into the water pipe. Below—water discharging into the open pit, where it is picked up for lease use.

B. G. Dawes, of Columbus, Ohio, president of the Pure Oil Company, inspected the company's producing properties in the Mexia and Corsicana-Powell districts in East Central Texas during the past week, and also held conference with Texas officials of the company regarding the development of leases in the new Wortham field and enlargement of pipe line facilities to the Gulf Coast.

FIELD NOTES AND PRODUCTION STATISTICS

Over 16,000 Bbls. New California Production

Rosecrans and Dominguez in Los Angeles Basin led with new wells—Midway district came to front also

By W. E. Green
Staff Representative

Los Angeles, Calif., Nov. 29.—The past week has been out of the ordinary in California in that 17 new wells in the state furnished a total initial production of better than 16,000 barrels, thus bringing about an increase in production, and halting the downward trend of the past several weeks.

Rosecrans and Dominguez fields in Los Angeles Basin led off with eight new wells having a total initial production of almost 12,000 barrels. The Midway district came across with six new producers furnishing about 3300 barrels of new production. In the Midway district, North American Oil Company's No. 11 in section 30-31-24 came in for 1000 barrels of oil of 27.3 gravity. This well came in with bottom of hole at 3869 feet, with perforated from 3779 to bottom of hole.

Weed Patch Wildcat

There is much interest in the General Petroleum Corporation's wildcat in the Weed Patch in Kings County. The bottom of hole is at 5480 feet and more hole is being made. It blew out slightly below 5400 feet, making lots of gas and just a little oil. The company officials think so much of the chance of getting production that four 2000-barrel tanks have been erected on the lease and a pipe line is being built into the district to handle such oil that will come. If this well comes in for a producer, much new drilling will take place in that vicinity.

Good Well at Rosecrans

The Associated Oil Company's Wanka 1 in the light oil area of the Rosecrans field came in this week for 2000 barrels of 41.2 gravity oil at 4428 feet. It has a tubing pressure of 295 pounds while the casing pressure is 600 pounds, with the oil coming in clean. It is flowing through a 29/32-inch bean or choke, with a string of 8¼-inch being cemented at 4074 feet. It will be seen that it is producing from 354 feet of pay formation, and for this reason it is expected to show a slight increase in output the next few days. Wells in this area have been showing large decreases in production the first two weeks, but officials of the Associated are looking for this well to hold better on account of the pay formation penetrated.

In this same area, Superior Oil Company's Maxwell 3 came for only 1600 barrels at 4526 feet, but with less pay formation than the Associated well, and it increased to better than 2100 barrels in four days' time. The gravity of this oil is better than 40 also. E. J. Miley's Athens 2 northwest of the high gravity area came in for only 750 barrels at 4707 feet. The Union Oil Company also completed Howard Park 2 (Athens 2) for only 150 barrels at 4700 feet, but this well will likely be worked over.

The outstanding completion in the field was that of the Union Oil Company's Rosecrans 1, the well that started all of the fireworks at Rosecrans and which found the first pay sand. This well was in all kinds of trouble and only the past week was it possible to successfully shut off the water after a large number of cementing jobs had been tried. Predictions had been freely made that it would never be possible to bring in the well flowing clean oil. But the predictions have fallen by the wayside and the well is on production, although it is making only 375 barrels.

Ends Stubborn Fight

The successful completion of Rosecrans No. 1 ends the most stubborn fight against water in oil wells on Los Angeles Basin records. The well is actually the discovery rig of the Rosecrans field, its finding of an oil sand last January being the signal for the first activity in the new area. Twelve cement jobs, with casing down to four and one-half inch size, however, failed to shut off the water and it was freely believed by many oil men that the Union would never get a producer. The final triumph after the many discouraging setbacks is a distinct tribute to the field department of the company.

Rosecrans No. 1 is one of the most historic wells in the south. It was started in August, 1923. Even before drilling was begun a jinx seemed to have entered itself against the project. The district was one which had been looked upon with disfavor for years. Two previous tests had been sunk within a hundred feet of the Union well. Both had suffered innumerable mechanical and water difficulties and were finally abandoned.

Six months after spudding in the well, the Union surprised operators by striking a rich oil sand at 3926 feet. This started the activity which has progressed to a point where Rosecrans is one of the most active of California fields.

Successive attempts were made by the Union to cement eight-, six- and four-inch casing. Failure after failure resulted, however, and it was finally decided to rig up standard tools and rip four- and six-inch strings of casing out of the hole and redrill with a six-inch string. This took months and was finally completed October 15th, when a string of six and one-quarter-inch casing was run and the well cemented.

Operations Slow at Dominguez

The Dominguez field now has 32 producers with a total daily average of around 35,000 barrels. There is an agreement among the operators in this field to place the wells 600 feet apart and there is also an agreement not to drill deeper than 400 feet into the pay. In this manner it is expected the life of the field will be prolonged and that it will be developed without unnecessary waste. The Associated Oil Company has spaced its wells in its 50-acre tract slightly closer than 600 feet, but this was done to permit the drilling of six wells on the tract, and the locations were made through an understanding with the companies operating on all sides.

CALIFORNIA FIELD OPERATIONS

The following table from statistics compiled by State Oil and Gas Supervisor R. D. Bush for California for the past several weeks gives a true insight into field activities:

Month of—	New Wells started	Water Shut-off tests	Deepening jobs	No. Wells aband.
June, 1923	120	195	59	22
July	94	145	46	23
*August	96	141	41	26
September	122	194	39	36
October	114	131	38	25
November	100	151	48	23
*December	105	181	37	32
January, 1924	120	111	48	23
February	125	97	49	47
*March	142	183	81	99
April	130	154	76	34
*May	156	171	79	34
June	118	149	66	18
July	112	129	69	28
August	105	142	86	34
September	87	118	79	35
October	78	101	72	15
Week ending—				
November 1	23	29	17	5
November 8	17	23	22	10
November 15	16	20	13	5
November 22	14	28	29	49

*Denotes months with five weeks.

Average Daily Production for all U. S. Fields

Oklahoma

Field—	Past Week	Prev. Week
Tonkawa	105,355	99,910
Burbank	72,260	72,840
Bristow	50,930	50,965
Cromwell	47,880	47,715
Osage (outside Burbank)	36,640	38,985
Gilcrease-Papoose	29 570	27,535
Okmulgee	25,480	25,800
Cushing	23,700	23,745
Hewitt	18,500	18,530
Wewoka	12,720	12,820
Healdton	12,470	12,495
Duncan and Walters	8,640	8,700
Stroud	3,760	4,315
Other Fields	78,590	78,300
Totals	528,495	522,655

Kansas

Greenwood	21,390	21,260
Eldorado	16 600	16,560
Rainbow Bend	8,000	8,300
Elbing and Peabody	7,995	8,000
Fox-Bush	4,885	4,900
Augusta and Douglas	3,005	3,035
Blankenship	2,800	2,825
Florence and Covert	2,390	2,400
Other Fields	18,900	18,845
Totals	85,965	86,125

Louisiana

Haynesville	16,840	16,700
Cotton Valley	11,700	12,510
Caddo Light	9,635	9,745
Homer	6,940	7,030
Vinton	6 050	5,900
Bull Bayou	4,700	4,700
Bellevue	3,545	3,625
Caddo Heavy	2,290	2,030
Evangeline	1,020	960
Lockport (Lake Charles)	950	1,200
Elm Grove	635	660
Edgerly	520	560
Anse La Butte	20	25
Totals	64,845	65,645

Arkansas

Smackover Heavy	70,630	71,735
Smackover Light	31,145	31,400
El Dorado	11,020	11,025
Stephens	2,010	1,940
Irma	1 310	1,360
Totals	116,115	117,460

California

Los Angeles, Calif., Nov. 29.—The daily average production of the fields of California the past week, compared with the previous week, with number of producing wells in several fields, was about as follows:

	Last Week	No. Prod. Wells	Prev. Week
Long Beach	128,000	494	130,500
Santa Fe Springs	54,000	352	54,500
Torrance	47,250	474	46,250
Huntington Beach	43,500	301	43 500
Dominguez	35,000	32	32,000
Rosecrans	7,000	13	3,600
Others	279,250		276,650
Totals	594,000		587,000

Wyoming-Montana-Colorado

PIPE LINE RUNS

Average daily pipe line runs from the various districts in the Rocky Mountain region for the week ended No. 29 totaled 90,765 barrels. This was an increase of 7280 barrels as compared with the record for the week ended Nov. 22, when the daily average was 83,485 barrels. Comparative daily runs are shown for both weeks:

Field—	Past Week	Prev. Week
Salt Creek	60,200	52,520
Lost Soldier	4,600	5,690
Big Muddy	3,910	3,050
Rock River	3,665	3,000
Cat Creek	3,335	3,640
Grass Creek	3,075	3,465
Kevin-Sunburst	3,090	3,600
Teapot	2,225	1,900
Craig	1,140	1,300
Elk Basin	1,020	975
Hamilton Dome	1,020	285
Lance Creek	1,000	1,045
Miscellaneous	820	915
Poison Spider	520	900
Osage	335	350
Lander	315	325
Notches	275	280
Pilot Butte	80	90
Ferris	50	75
Greybull, Etc.	9	80
Totals	90,765	83,485

Texas

NORTH-CENTRAL

Field—	Past Week	Prev. Week
Corsicana-Powell	67,650	68 215
Archer County	40,135	41,270
Mexia	23,100	23,450
Richland	18,300	19,700
Electra	18,945	18,745
Stephens County	16,675	16,945
Burkburnett	16,545	16,825
Wortham	9,000	.....
Reagan County	7,290	6,815
Ranger-Eastland	1,160	6,290
Desdemona-Gorman	5,525	5,590
Vernon-Wilbarger County	4,880	5,025
Young County	3 955	3,960
K-M-A	2,660	3,160
Currie	2,630	3,000
Moran-Shackelford County	2,845	2,930
Mitchell County	1,540	1,575
Callahan County	1,440	1,445
Panhandle District	1,360	1,380
Iowa Park-Shappell	1,090	1,480
Brown County	720	725
Strawn-Palo Pinto County	710	740
Petrolia-Clay County	435	365
Coleman County	65	70
Thrall-Williamson County	75	80
Scurry County	40	15
Throckmorton County	35	40
Jack County	25	30
Totals	253,830	249,870

GULF COAST

Hull	16 300	15,700
Orange	12,200	14,200
West Columbia	12,400	12,500
Goose Creek	9,600	9,900
Humble	5,110	5,100
Sour Lake	3,960	4,075
Big Creek	2,100	2,100
Batson	1,620	1,600
Saratoga	1,500	1,525
Damon Mound	1 340	1,325
Spindletop	1,120	1,275
Blue Ridge	570	750
Pierce Junction	750	600
Markham	65	210
Barbers Hill	135	155
Nacogdoches	110	110
High Island	90	65
Dayton	45	60
Hockley	..	10
Totals	69,015	71,260
Luling	35,000	36,300
Mirando	9,400	8,400
Somerset	4,400	4,400
*Misc. South Texas	1,160	1,250
Totals	49,960	50,350
Totals Texas	372,805	371,482

*Includes Callahan, Rockdale and Minerva.

Condensed U. S. Production for Twelve Months

(Stated in Barrels)

This table is carried each week by The OIL WEEKLY, and shows daily production average for each state or section. Figures for Oklahoma, Kansas, Texas, Louisiana, Arkansas and Mountain States are compiled by The OIL WEEKLY, while estimates for California and Eastern States are furnished by the American Petroleum Institute.

Daily average for month	*Mid-Continent	North Central Texas	Texas Coastal	Texas Total	Kansas	Okla.	Louisiana	Eastern States	Wyo. Mont. and Colo.	Calif.	Ark.	U. S. Total
May	793,774	203,776	90,905	304,032	85,500	504,498	75,368	109,125	125,680	700,125	109,033	2,010,840
June	824,297	217,162	92,240	320,250	85,255	521,880	72,745	110,300	129,559	773,000	133,592	2,159,818
July	866,665	274,330	91,795	378,335	84,785	508,405	70,085	113,000	137,300	851,000	132,395	2,275,305
August	826,982	278,574	94,398	393,780	82,741	464,416	68,739	112,625	137,909	866,250	123,000	2,251,966
September	830,517	371,730	93,649	443,461	77,078	421,763	68,935	108,400	157,742	858,700	127,955	2,269,176
October	876,059	408,036	84,120	511,483	71,362	371,657	65,305	107.750	139.912	823,125	125,145	2,240,741
November	935,975	479,383	82,747	580,700	69,337	287,253	64,701	108,125	151,225	768,275	124,188	2,253,806
December	729,591	283,130	78,033	378,478	68,444	378,017	61,138	110,300	146,770	723,845	120,045	1,987,041
January (1924)	685,540	243,120	75,085	334,485	67,815	374,605	59,125	108,000	144,735	698,965	114,255	1,900,985
February	729,933	254,180	81,131	362,849	68,183	407,568	59,449	104,500	141,775	675,425	114,726	1,934,476
March	762,684	284,874	78,567	388,221	69,864	407,946	55,783	97,800	128,352	650,790	119,869	1,917,023
April	777,590	276,595	76,755	380,005	71,015	429,980	54,740	101,250	127,700	649,825	128,750	1,943,270
May	763,320	267,475	74,175	374,915	71,490	424,355	60,655	103,800	127,770	640,930	148,630	1,952,545
June	799,230	260,785	74,335	375,310	74,265	464,175	62,660	105,750	125,735	628,400	157,165	1,993,465
July	815,830	254,665	75,445	378,365	81,545	479,620	63,855	107,175	124,305	620,175	148,655	2,003,695
August	861,640	254,520	75,700	377,045	85,765	521,355	62,595	107,000	123,895	619,200	142,740	2,037,890
September	886,650	253,243	76,953	366,197	86,758	546,647	62,162	107,622	117,345	611,500	131,343	2,029,580
October	855,823	247,222	75,713	359,861	86,884	521,717	62,493	106,600	107,270	605,060	123,235	1,972,902
November 7	843,197	246,072	71,980	365,602	86,020	511,105	66,105	106.500	99,970	600,000	119,920	1,955,222
November 14	836,795	244,095	74,340	368,595	86,015	506.685	67,875	106,000	90,600	595,000	126,080	1,946,850
November 21	858,652	249,872	71,260	371,482	86,125	522,655	65,645	106,500	83,485	587,000	117,460	1,940,352
November 28	868,290	253,830	69,015	372,805	85,965	528,495	64,845	106,500	90,765	594,000	116,115	1,959,490

*Includes North Central Texas, Kansas, Oklahoma.
NOTE—Mexia production included in North Central Texas.

Holding for Price Causes Increase in Eastern Stocks

Pittsburgh, Pa., Dec. 1.—One of the most interesting features of the week in the fields east of the Mississippi river is that most refineries that have been shut down or working part time are now reported running full time, and that alone makes the average producer feel as though something worth while will soon happen, in the way of an increased price for credit balances. The more Eastern refineries would and could take more of the Pennsylvania crude, if they could get it. What makes this grade of crude more scarce, is the fact that operators are holding their oil for higher prices, and the average operator who has not enough production to keep the oil stored, fears that it is the real cause of the price not going upward. That is one reason that the stocks of Eastern crude is on the increase, and not until some of this stored crude is put on the market, there is slight chances for a raise in price of oil.

The sensational well of the week was that found in Clay county, Tennessee, by DaFoe & Company, on the Lynn farm, which showed a flush of better than 1000 barrels from a depth of 433 feet, although this depth takes the hole a distance of 105 feet below the Pencil Cave formation, in which considerable oil is found across the state line in Cumberland and Monroe counties, Kentucky. The past several days has seen the picking up of vast blocks of acreage over the area close to the new gusher. This territory does not carry oil in an extensive way as a field, but lies in pools or crevices and every hole drilled does by no means mean a producer, but when one is found, it is usually one of large production. The supposition is that Tennessee is to be the next field of importance in the Eastern territory.

Some very creditable producers were found in other fields of the East during the week. Central Ohio comes to the front with several deep Clinton sand wells in Licking and Fairfield counties, that means staying production, the best being a 200-barrel producer found by the Everette Company, and a couple of above the average producer by the Carter Oil Company. In Southeastern Ohio, the Sun Company hit a 125-barrel surprise when its No. 6 Grant Bailey, in York township, Morgan county, came in. This is the best well found in that section of the state for a number of years.

The finding of a 200-barrel flush well by Ben Fleming on the Evans lease, in Owsley county, Kentucky, and quite a long distance ahead of production, means the opening of what looks like an entirely new pool.

Taking the Eastern fields as a whole, the week's work was very satisfactory, there being a total of 210 wells completed, with 113 oil wells with a flush of 2615 barrels, 34 dry holes, and 63 gas wells, with a combined volume of 106,250,000 cubic feet of gas.

Controlling Water in Richland Oil Field

In the Richland field, one of the newer oil-producing districts in Texas, some of the wells have been drilled into a water-bearing sand, which threatened to cut off the supply of oil. The oil operators promptly called upon the Interior Department for advice in controlling these underground waters. After careful study of the well logs and other data submitted by the operators, and an examination of field conditions, engineers of the Bureau of Mines in less than two weeks prepared maps and underground cross-sections showing the position of the oil, gas and water strata and furnished the operators with definite information for plugging back the wells and controlling the intruding water.

In the Powell field, in Texas, 29 wells have been cemented under the direction of the Bureau of Mines engineers. Twenty-two of these wells have been tested so far, showing that the water has practically all been excluded. The average daily production of the wells has been increased from approximately 800 barrels to 6000 barrels. The repair work, based entirely on the engineering study of the field by the Bureau of Mines engineers, is making rapid progress because of recent improvements in the tubing method of cementing. The time of shut-down for repairs on a well has been reduced from 10 or 12 days to only 4 days.

Imports of Petroleum at Principal United States Ports

The following represents the total imports of crude oil for the month with the current month given by weeks:

	Atlantic Ports						Gulf Coast Ports					
	Baltimore	Boston	New York	Philadelphia	Others	Total	Galveston	N. Orleans Baton Rge.	Port Arthur Sabine Pass	Tampa	Total	Total at All Ports
October	365,000	292,000	1,194,000	536,000	816,000	3,203,000	988,000	1,330,000	380,000	50,000	2,248,000	5,951,000
November	223,000	395,000	1,194,000	576,000	757,000	3,145,000	1,478,000	1,000,000	551,000	111,000	3,287,000	5,432,000
December	474,000	574,000	1,243,000	606,000	1,024,000	3,917,000	2,019,000	1,832,000	933,000	259,000	5,043,000	8,960,000
January, 1924	398,000	531,000	1,060,000	376,000	949,000	3,314,000	1,295,000	887,000	689,000	15,000	2,936,000	6,250,000
February	520,000	527,000	639,000	458,000	771,000	2,865,000	1,558,000	1,284,000	525,000	195,000	3,562,000	6,427,000
March	802,000	734,000	1,243,000	502,000	1,668,000	5,049,000	2,346,000	1,689,000	1,116,000	301,000	5,257,000	10,281,000
April	653,000	664,000	1,371,000	407,000	1,067,000	4,162,000	1,641,000	1,492,000	510,000	68,000	3,711,000	7,873,000
May	693,000	618,000	1,368,000	264,000	1,329,000	4,272,000	1,398,000	1,308,000	884,000	169,000	3,759,000	8,031,000
June	515,000	466,000	1,864,000	292,000	1,026,000	4,163,000	1,769,000	1,079,000	685,000	145,000	3,678,000	7,841,000
July	375,000	260,000	1,971,000	179,000	1,114,000	3,899,000	1,418,000	1,211,000	579,000	153,000	3,361,000	7,260,000
August	463,000	400,000	1,958,000	468,000	788,000	3,945,000	1,857,000	1,210,000	547,000	80,000	3,694,000	7,639,000
September	437,000	193,000	828,000	330,000	878,000	2,666,000	1,090,000	1,350,000	605,000	87,000	3,132,000	5,798,000
October	665,000	.....	1,588,000	136,000	224,000	2,590,000	658,000	1,090,000	285,000	70,000	2,103,000	4,643,000
November 1	65,000	132,000	74,000	200,000	79,000	550,000	483,000	245,000	252,000	60,000	1,040,000	1,590,000
November 8	200,000	175,000	591,000	229,000	286,000	1,481,000	206,000	269,000	60,000	.....	535,000	2,016,000
November 15	310,000	.....	444,000	110,000	181,000	1,045,000	407,000	343,000	144,000	20,000	914,000	1,959,000
November 22	124,000	66,000	237,000	181,000	283,000	891,000	478,000	434,000	108,000	45,000	1,065,000	1,956,000

NOTE—Figures by American Petroleum Institute.

Receipts of California Oil at Atlantic Coast Ports

The following shows the receipts of California oil at Atlantic Coast ports by months with the current month given by weeks:

	Atlantic Ports						Gulf Coast Ports					
	Baltimore	Boston	New York	Philadelphia	Others	Total	Galveston	N. Orleans Baton Rge.	Port Arthur Sabine Pass	Tampa	Total	Total at All Ports
October	779,000	224,000	2,503,000	779,000	429,000	4,714,000	.....	746,000	.....	.....	746,000	5,460,000
November	591,000	155,000	2,302,000	584,000	271,000	3,903,000	.....	935,000	.....	.....	935,000	4,838,000
December	454,000	215,000	2,901,000	813,000	753,000	5,136,000	.....	729,000	.....	.....	729,000	5,213,000
January	619,000	77,000	3,156,000	659,000	503,000	4,660,000	.....	615,000	.....	.....	615,000	5,275,000
February	326,000	145,000	2,811,000	842,000	75,000	4,199,000	.....	810,000	.....	.....	810,000	5,009,000
March	298,000	77,000	3,352,000	989,000	413,000	5,129,000	.....	.....	.....	.....	.....	5,129,000
April	170,000	77,000	2,633,000	378,000	224,000	3,482,000	.....	.....	.....	.....	.....	3,482,000
May	190,000	147,000	2,771,000	411,000	273,000	3,792,000	.....	315,000	.....	.....	315,000	4,107,000
June	522,000	147,000	2,490,000	443,000	220,000	3,822,000	.....	.....	.....	.....	.....	3,822,000
July	167,000	70,000	2,017,000	374,000	188,000	2,816,000	.....	75,000	.....	.....	75,000	2,891,000
August	400,000	.....	2,914,000	288,000	520,000	4,354,000	.....	30,000	.....	.....	30,000	4,384,000
September	290,000	148,000	2,737,000	327,000	81,000	3,583,000	.....	.....	.....	.....	.....	3,583,000
October	378,000	217,000	2,338,000	379,000	160,000	3,472,000	.....	.....	.....	.....	.....	3,472,000
November 1	.....	.....	513,000	164,000	.....	677,000	.....	.....	.....	.....	.....	677,000
November 8	.....	223,000	337,000	.....	80,000	640,000	.....	.....	.....	.....	.....	640,000
November 15	180,000	.....	387,000	105,000	.....	672,000	.....	.....	.....	.....	.....	672,000
November 22	185,000	.....	506,000	.....	.....	691,000	.....	.....	.....	.....	.....	691,000

NOTE—Figures by American Petroleum Institute.

Gray Discusses Fuel As Oil Price Basis

(Continued from page 29.)

fornia. These four companies and their subsidiaries, handle 700,000 barrels of crude oil per day, or about 30 per cent of the total.

The Standard Oil Company of New Jersey, through its President and its official organ called "The Lamp", recently announced that it was the solemn judgment of the Board of Directors of the Standard Oil Company of New Jersey, that the price of crude oil in the future would be based on its relative value to coal. Therefore, it is now up to the Mid-Continent producer, refiner, pipe liner, well driller and tool dresser to definitely determine whether this policy of the Seaboard refiner shall continue to be put into effect in the Mid-Continent area.

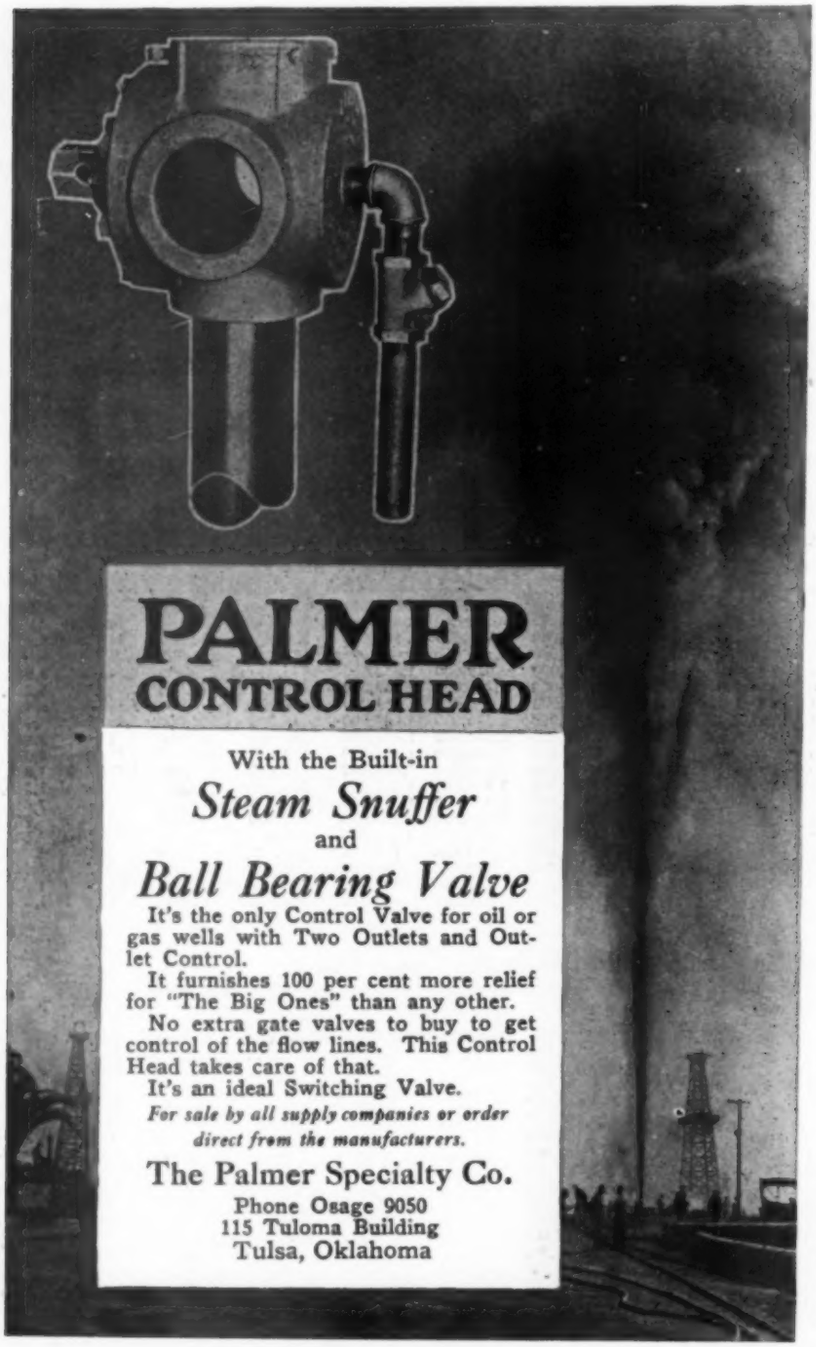
The question is will we permit the Seaboard refiner to base the price of crude oil which we produce in our territory on the price of coal.

The answer to that question is that we will permit him to do so just so long as we produce more oil than is needed for our own use. We will not permit him to do so if we limit our operations and development work and direct these same Seaboard refiners to desist from any wanton exploitating of our territory at a time when the result of their activities will bring disaster upon us but which may net a profit to them.

Refiners' Purchase Policies

The policy of the Atlantic Seaboard refiner is to get away from purchasing as much oil as he can from the Mid-Continent area. In other words to purchase as little as possible from the Mid-Continent producers, for he knows that when he is forced into the Mid-Continent market to purchase the bulk of his requirements that the market for crude oil must turn on light gravity rather than on heavy gravity crude for Oklahoma, Kansas and North Texas crude is gasoline crude and not fuel oil crude. Therefore, the Seaboard refiner has made every effort in the last few years to develop oil fields in foreign countries. The Mid-Continent producer and refiner have no right to complain as to this policy of the Seaboard refiner. The Seaboard refiners are engaged in selling large quantities of oil to foreign countries and it is their privilege to go into foreign countries for their supply of crude.

Operations in the Mid-Continent district, whether they be producers, pipe liners, or refiners, should no longer look to the Seaboard refiner to help in stabilizing the crude and refined markets in this area. The burden is upon them. They have been told so by Seaboard refiners in no uncertain terms. The greatest factor in the Seaboard group has told them that so far as the Seaboard refiner was concerned, that he would pay what he had to pay and that he would buy the production as cheap as he could, that there would no longer be any benevolent cooperation for the purpose of maintaining a stable market. They have substantially laid down the proposition that they would come here and buy oil when it could be bought on a fuel oil basis and when they couldn't buy it on that basis they would go some where else and get it. With them it is a question of whether or not it is a buyer's or a seller's market. If the seller has the power he can make them buy on his basis. If it is a buyer's market they can make the producer sell on their basis and they have told him what the basis is. Therefore, it is up to the Mid-Continent producer, pipe liner and refiner to exercise every influence at his command to prevent the drill from being too freely exercised in this territory when there is an upward tendency in the price.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Davis Acquires Control Of Pipe Line at Luling

Luling, Texas, Dec. 1.—All outstanding interests in the Mutual Pipe Line Company, which is the largest crude oil gathering and tank car shipping concern in the Luling field, has been acquired by Edgar B. Davis, president of the United North and South Oil Company, following the recent purchase of a one-third interest held by the Portable Refining Company of Dallas. A one-third interest in the Mutual Pipe Line Company held by Walter K. Campbell of Tulsa was purchased last summer by Mr. Davis.

Oklahoma Operators Ready for Osage Sale

Production in state jumps 6000 barrels with Tonkawa and Papoose pools sharing honors

By W. Lee Sloan
Staff Representative

Tulsa, Okla., Dec. 2—Approximately six thousand barrels of oil was added to the total daily average of last week and the state showed 528,495 barrels as a daily average for the past week. Almost the entire increase came from the Tonkawa field while the increase of two thousand barrels in the new Papoose extensions was sufficient to offset the decline in other fields.

As the Osage sale of leases comes on the 18th of the month, the major companies are now busy watching the development on offset leases which have already been sold. The scouting departments of these companies are now devoting their entire time in gathering data on the past performance of the field. Operators of the state are almost confident that the new development at Wortham, Texas, will have a great effect upon the sale and bidding will be conservative.

The Carter Oil Company has recently plugged their No. 1 well in the southwest corner of section 32-27-6. This well has been producing about five barrels per day up until recently when it dropped off to a daily gauge of two barrels. This same company is preparing to abandon two wells on the northeast quarter of section 12-26-5, a 160 acre tract for which the Carter company paid $500,000.

The Carter Oil Company No. 16, on the northwest quarter of section 11-27-5, topped the sand at 2975 feet and after drilling in, the well made 975 barrels during the first 24 hours. Carter's No. 12 in the southeast of section 16-26-6 topped the Burbank sand at 2907 feet, first oil at 2923 feet, and at a total depth of 2976 feet, the well made 191 barrels during the first 17 hours. An offset lease to this well will be sold at the sale on the 18th of this month.

The Tonkawa deep sand wells almost registered a new peak during the past week when their total output reached 83,567 barrels for 24 hours. The previous record of the wells was 88,604 barrels, the daily porduction for September 13th, 1924. Operators who have heretofore predicted that the deep sand wells would show a rapid decline in production have become resigned to the fact that the sand will have a longer life than the predictions called for. The first 24 wells in the deep sand which established the high record for the field are today producing 44,853 barrels or a decline of less than 50 per cent. Following is a report on the first 24 wells their production on the banner day and their output on November 25th:

(Barrels)

	Sept. 13	Nov. 25
Blackwell O. & G. Co. No. McDaniels	4,652	3,700
T. B. Slick's Endicott 1	1,810	1,400
Endicott 5	1,860	1,400
Pennock Oil Co.'s Endicott 1	1,700	750
Endicott 4	1,600	900
Endicott 7	2,100	600
Endicott 5	3,200	900
Endicott 8	3,100	700
Comar Oil Co.'s E. Endicott 1	3,900	1,862
E. Endicott 5	3,525	2,147
L. Endicott 1	3,912	2,479
Pettit 4	1,667	905
Beverlin 1	4,288	1,849
Endicott 6	3,900	2,669
Endicott 7	4,100	3,353
Gaume 1	7,067	884
E. Endicott 4	4,707	4,953
Pettit 6	3,451	1,167
Wentz Oil Corp.'s McKee 45	9,577	3,812
McKee 18	4,718	1,911
Gypsy Oil Co.'s Shawver 81	2,450	1,741
Shawver 83	4,380	1,250
Shawver 84	3,044	1,250
Shawver 85	3,895	2,271
Totals	88,604	44,853

In the Papoose area where the attention of the major operators has been drawn during the past two weeks, the Indian Territory Illuminating Oil Company and Barnsdall Oil Company No. 2 Darnell-Williams, in the center of the southeast of the southeast of the southeast of the southeast of section 34-10-9, Okfuskee County, found the Papoose sand at 3305 feet to 3322 feet and it started off making 60 barrels an hour. Like other wells in the field, considerable trouble was experienced in drilling by the Gilcrease sand above where water and caves have given the operators so much trouble. Two sections west of this well, the Amerada Petroleum Corporation paid $60,000 for a one-half interest in the southwest quarter of section 36-10-9. The Amerada Company will immediately start a well on their newly acquired acreage and provided it is a producer of over 500 barrels per day, two more wells will be drilled.

With the extension wells in the Papoose pool coming in almost daily and each a good producer, some operators are of the opinion that the field will rival Cromwell when the territory is drilled up.

The second well for the Roxana Petroleum Company in a pool opened by them in their No. 1 Cullar in section 12-8-8 in Hughes County, is reported to be producing 300 barrels per day while drilling at 3443 feet. No. 1 Cullar was the discovery well of the pool, it being completed about a month ago after having numerous fishing jobs and other trouble. It is now making 1,680 barrels of oil per day and cutting 801 barrels of water. No. 1 Chucpo, the new well is located in section 1-8-8.

The Oklahoma Pipe Line Company is laying a four inch line from their pump station in section 3-15-8 to production in township 14, range 8, and are connecting it to all of the production of the Skelly Oil Company. It is reported that they will also connect to production of the Independent Oil & Gas Company in section 35-14-8, Creek County.

Oklahoma Producers & Refiners Corporation's No. 2 Kernel, in the southeast corner of the northeast of section 30-14-8, Creek County, topped sand at 3414 feet and made 800 barrels during the first 24 hours from a total depth of 3418 feet. The second 24 hours, it made 500 barrels.

A showing of oil and gas is reported by the Amerada Petroleum Corporation in their wildcat well in the southeast corner of section 24-19-1 east, Payne County. The gas broke through mud being pumped through the drill stem of a rotary rig. No. 1 French is located just four miles west of the Oklahoma Agricultural and Mechanical College at Stillwater and is in the center of 46 quarter sections held by the Amerada company.

The Superior Oil Company and Sheldon Brothers have opened a new Dutcher asnd pool north of Beggs in their No. 1 Vore, in the center of the northeast of the southeast of the northwest of section 34-16-12 which is showing for a 300 barrel producer. The sand was found unexpectedly at 3173 feet and a showing was evident despite the fact that the well was carrying a hole full of water from the Tanaha sand above. A packer is now being set and the water cased off preparatory to making a test. Tanks for the expected porduction are now being erected.

The Champlin Refining Company at Enid, largest of independent premium payers for high gravity oil, are now preparing to take care of their purchases by ordering material for four eighty-thousand barrel tanks which will be erected at Enid. Most of the material for the tanks has arrived and work on the levees have already been thrown up. Champlin is active in purchasing Garber and Tonkawa crude, reported paying a 25 cent premium for it.

E. A. Stiller, chief geologist for the Arkansas Fuel Oil Company of Shreveport, stopped over in Dallas early this week on his return trip from Casper, Wyoming, to make a wildcat location for the Company in Franklin County, Texas.

Wortham Offers Disturbing Market Factor

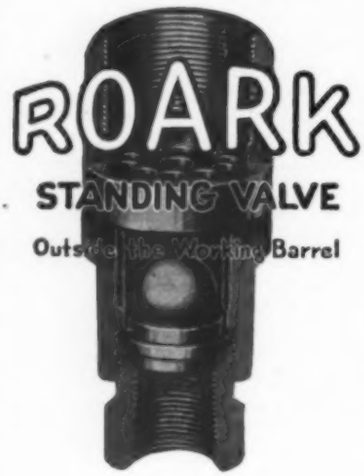
(Continued from page 23.)

Oklahoma. Two weeks ago a feeling of optimism was prevalent in the state and confidence of an era of increased prices was being expressed, but today the situation seems to have gone from one extreme to the other. Prominent operators who have heretofore been optimistic in the face of deep sand production at Tonkawa, and a big field at Cromwell, have lined up behind the pessimistic faction. Some operators are still optimistic, however, and believe that if the Wortham field reaches the predictions made, it will have a better effect upon the suppression of drilling activity in the Mid-Continent area than any other factor which will ultimately mean a steady market on which to enter the spring months, having in mind that the Wortham field will reach and pass it's peak before that time.

Permium paying by the independent refiner has not been affected by the new field on account of the fact that the production is not termed as free oil but is in control of the major companies. Operators in Oklahoma are of the opinion that the second sand at Smackover, Arkansas, will have a worse effect upon the market than the Wortham oil on account of the fact that it is the small independent producers there who will vie with each other in flooding the market to the smaller refiners. The Prairie Oil & Gas Company having heretofore set the pace in increasing the price of crude, will obviously let their present posted price stand on account of their connection with the Boyd Oil Company production and Oklahoma producers are becoming resigned to the fact that there will be no increase in price and that they must now eliminate their plans for extensive drilling.

Several contracts which have been pending for Mid-Continent crude remained unsigned today and it is probable that they will remain so until the potentialities of Wortham are realities.

Since You Must Buy Standing Valves Anyway, Why Not Get the Best?



Since every pumping well must have its standing valve, and it is just as easy to get the best valve as any other, why not get the benefit of the most advanced ideas that progress and scientific study have developed?

Two seconds' study of the illustration at the left will show how far ahead the ROARK VALVE is of anything else on the market.

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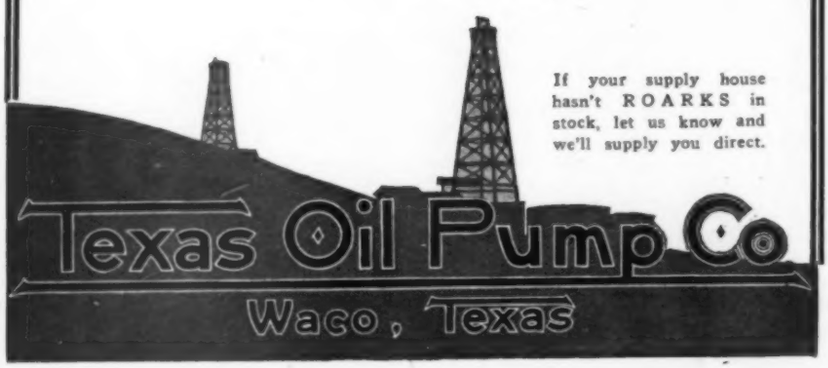

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Use of Production Decline Curves

The production decline curve is the best method as yet developed for determining how production of oil is affected by changes of field operation methods, states Willard W. Cutler, Jr., in Bulletin 228 of the Bureau of Mines, Department of the Interior. Any change of operation will cause a deviation in the production-decline curve and the effect on production can therefore be determined by referring to the extension of the production-decline curve as constructed from previous records which is thereby used as a base line for measuring the efficiency of the new method.

The advisability of introducing a new method of operation, such as the use of compressed air, water drive, or the installation of vacuum is a matter of dollars and cents. If the financial gain through increased production of oil and gas is greater than the additional cost involved, the change is warranted. The effect of the proposed method on the production of similar properties in the same field can be used as a criterion of its probable effect on production in the tract being considered.

The effect of minor changes in operation, such as cleaning, shooting, use of back pressure on the wells, the position of the working barrel, change of management, and so on, may be determined by using the projection of the production-decline curve. If the gain, as shown by the production-decline curve, from shooting and cleaning of wells is greater than the cost involved, the operator is justified in shooting and cleaning certain other wells.

In this way, the production-decline curve can be used to increase efficiency in the operation of oil properties.

M. F. Waters, manager of the Smith Separator Company of Tulsa, was married on Wednesday, November 26, to Pearl Savoil. Immediately after the ceremony, Mr. Waters and his bride left for a very extended honeymoon through the East. Mr. Waters has made many friends since becoming affiliated with the Smith Separator Company two years ago. Mrs. Waters is the owner and manager of the Suzanna Shop at Tulsa.

Salt Creek Wells Will Be Pumped When Electric Plant Is Completed

Casper, Wyo., Dec. 1.—An accurate survey of the Salt Creek fields shows that there are more than 200 wells which are not producing a barrel of oil. Not one of these wells is a dry hole but every one would be a producer if rigged up to pump. As the gas pressure went off the wells were allowed to stand idle, pending the completion of the giant electrical plant being constructed and now practically completed. One by one the number increased and the production decreased. It was considered unprofitable to pump with steam for a month or two and switch over to electricity.

Exactly 1300 wells had been completed in the Salt Creek field to November 27, 1924. A few of these have been abandoned for various reasons. By actual count 1124 wells are capable of producing oil, but of this number more than 200 are idle, leaving only 900 wells to produce the oil that is now coming from the field. If the present program is carried out and the outlook for crude is encouraging, more than 600 wells will be drilled in the field during the coming year.

Several years ago an agreement was reached whereby it was agreed by both the operators and the government that a strict conservation policy would guide the development of the field by drilling not more than one well to each eight acres or 80 wells on each section. This agreement has been abided by and not more than half the allotted wells have been drilled. The result was that cheap crude was not thrown on the market to hold down an industry which was already suffering from its own poor management.

The average daily production per well in the Salt Creek field during the first part of November was almost 50 barrels. One year ago the average daily production per well was more than 120 barrels. The decrease, though rapid, is natural. The field is now producing more than 10,000 barrels above the production of two weeks ago.

Water in Tensleep Sand

One of the real surprises of the week was the announcement of the Columbus Oil Company, a subsidiary of the Benedum-Trees interests, that its No. 1 well on section 7-36-49 in the North Casper Creek field, had encountered water in the Tensleep sand at approximately 3400 feet. So sure were the operators that this horizon would be productive, leases had changed hands at comparatively large figures for semi-wildcat territory. The Midwest Refining Company brought in a 10,000,000 foot gas well in the upper sands more than a year ago and every indication pointed to production of some size in the lower horizons. The latter company is now drilling a test of the structure and it will in all probability proceed until the Tensleep is reached. This is one of the largest structures in the state and there is some doubt that the well drilled by the Columbus interests was near the apex of the dome. As there is no other immediate object, the well will be abandoned.

The Midwest Refining Company's No. 33X on section 35-40-79 is now less than 100 feet above the Lakota, the sand which recently produced a 6000 barrel gusher. This sand will be encountered at about 2340 feet if the log tallies with the discovery well, which is being drilled deeper to test the lower sands. The latter well has been successfully mudded after several futile efforts to carry the casing through the Lakota.

The Producers & Refiners Corporation has removed its offices from Casper to Parco, Wyoming, as a move toward centralizing its Wyoming operations. The company has holdings in the Salt Creek, Lost Soldier, Ferris and Wertz fields and operates a large refinery at Parco. The company will eventually center its operations from Cheyenne since the Kasoming, chief operator for the Prairie interests which recently took over the Producers & Refiners Corporation, has its main offices there. The removal was a surprise as the coproration recently acquired the large office building just vacated and will probably put it up for sale.

Storing Oil

The curtailment of crude runs to the Casper refinery has reverted an unusually large amount of oil to storage as the Midwest Refining Company is still taking all the Salt Creek field is capable of producing. The slackening of the refinery was caused by the lack of demand for gasoline, it has been announced.

The Bock Syndicate, drilling near Newcastle, reports that its No. 1 well has struck oil at approximately 500 feet. The well is good for 6 or 7 barrels it is claimed. The test will be continued until several lower sands are encountered.

In Colorado

The Mutual Oil Company will drill two or three new tests in the Florence, Colorado, field. This indicates new interest in a very old field. Oil is found at varying depths in this field and a shale well is not uncommon at any depth. Wells may also be drilled immediately around the original field in the hope that leads or faults may be found.

The Ohio Oil Company has announced the abandonment of its Russler No. 1 on section 25-21-64 in Pueblo County. The hole was carried to 1740 feet and the oil possibilities in the immediate region were found to be very poor. The upper sands had been found dry throughout.

The Midwest Refining Company's French No. 1 on section 22-4-79 on the Iles Dome is said to be a producer if the water found in the top of the sand could be cased off. Varying estimates have been made but due to the enormous amount of water nothing accurate can be judged as to its production.

Pending a deep test the Midwest Refining Company is drilling a number of validating holes on the High Line Dome in Mesa County. This structure is very promising and a deep test will probably be put down in the spring.

Joint interests including the Texas Production Company and the Trans-Continental Oil Company have spudded in a well on section 16-4-92 on the Iles Dome. These interests also brought in the great producer near Craig.

A test near Eckley, Colorado, will be made by the General Oil Company. The company has spudded in on section 20-2-46 and will rush the test to as early completion as possible.

Small amounts of gas have been found recently by the Ohio Oil Company, drilling on the Prince ranch at Lafayette, Colorado. The gas has been found only in small pockets. The well is drilling at about 1700 feet.

The Midwest Refining Company has struck oil at 3900 feet in its Moodrell No. 1 near Antelope point in the Lake Basin district in Montana. It is claimed that oil rose half way to the surface. The well will be drilled in at an early date.

The Montana Company, drilling at about 1000 feet, has struck a flow of gas estimated at 15,000,000 feet in its Bowes structure well near Chinook, Montana. The company has not announced whether the gas will be shut off or used as fuel.

Drilling for water at 500 feet near Malta, Idaho, some ranchers recently had a very good showing of oil. Reports of a considerable amount of gas in that region have been made several times in the past.

Luling Extension Well Shows Trend Northeast

Luling, Texas, Dec. 2.—Trammel No. 7, the United North and South Oil Company's well, one-half mile northeast of the Tabor and Marshall leases, was completed last week for an initial flow of 250 barrels of clean oil. The well, which extends the field one location to the northeast, is the largest producer northeast of the Tabor and Marshall leases not to be bothered with water.

Due to the behavior of the late completion and data obtained from the well's log, local operators have expressed a belief that the pool takes a turn to the northeast.

The Grayburg's pipe line, being laid from their refinery in San Antonio to the Luling field, has been completed as far as the western border of Guadalupe County.

Purchasing Agents Visit Manufacturers at Lufkin

Lufkin, Texas, Dec. 1.—Members of the Purchasing Agents Association of Houston were guests Saturday, November 29, of the Chamber of Commerce of Lufkin. In the morning the purchasers were taken by automobiles to Nancy, a modern logging camp, about thirty miles from Lufkin. Here the purchasers had an opportunity to view the logging operations of the Angelina County Lumber Company, including cutting of trees, skidding logs and loading them onto cars for shipment to the mill. It was here, among the hundred-year-old pines, that Doc Oldham, Emmett Nolen, Bert Childs, J. T. McClelland, Frank Carruthers, Paul Reid and others well known to the oil fraternity first sipped the cup of Lufkin hospitality.

The Purchasers were the guests of the Lufkin Foundry & Machine Company at a luncheon served at their plant. W. C. Trout, general manager, made a short address, welcoming the visitors. He stated that his company was constantly adding to its line of products for use in the oil fields. Each of the employes of this concern wore a tag showing the number of years' continuous service with the company. Some of these tags indicated as high as 24 years' service.

After luncheon a trip was made to the plant of the Martin Wagon Works, manufacturers of heavy duty wagons. B. L. Zeagler, president of this concern and a member of the Purchasing Agents Association, showed the purchasers through the plant.

A trip was then made to Keltys to inspect the plant of the Angelina County Lumber Company. Ernest L. Kurth head of the industry, showed the purchasers through the plant, and manufactured walking beams for the oil producer purchasers while they waited.

An inspection was also made of the plant of the Long-Bell Lumber Company, after which the purchasers returned to the hotel to rest and get "in condition" for the banquet, which was held at the Angelina Hotel. W. C. Trout, toastmaster at the banquet, was ably assisted by Doc Oldham, who, being greatly enthused by the atmosphere of Lufkin, generously volunteered his services. He served nobly until he was advised by Messrs. McClellan and Carter (another instance of the "blind leading the blind") to return the gavel to Mr. Trout.

Bert Childs was also "greatly enthused" and obliged with many songs. Mr. Glenn welcomed the Purchasing Agents to Lufkin, and made the statement that the affair was more like a real banquet than any it had been his pleasure to attend since the passing of the Volstead act. J. E. Nolen, president of the Purchasing Agents Association, responded.

Top View

The "EMSCO" Improved, two-story Steel Crown Block

Because of its two-deck structure, this improved EMSCO Steel Crown Block becomes the most efficient of any crown blocks heretofore offered rig operators.

It is designed with the purpose of eliminating to the greatest extent all wear on casing lines, sheaves, and bearings. This is accomplished by using large special steel sheaves, 30 inches in diameter and placing them in the crown in a position that will allow all lines to pull straight from the sheave to draw works or calf wheel, as the case may be. A 12-inch sheave in the lower deck can be used as an idler or for a cat line sheave. The crown and sand sheaves are adjustable to different positions with ample clearance.

The two-deck structure again justifies its existence because it is practical to remove casing sheaves and beams that form the 2nd story for use in another rig leaving sand and crown sheaves in position for further use.

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Kiowa Indian Agency To Hold Land Sale

Tulsa, Okla., Dec. 2.—The Kiowa Indian Agency at Anadarko, Oklahoma, announce a sale of Indian land at public auction on Dec. 14. Approximately 1834 acres will be sold at that time.

The sale will begin at nine o'clock on the morning of the 18th and continue until noon. The following described leases will be put up for sale:

1. SE 160 acres of section 4-8n-11.
2. SE and SW 80 acres of section 5-8n-11.
3. SE-NW 40 acres of section 5-8n-11.
4. Fr. NW 153.85 acres of section 7-8n-11.
5. SW 160 acres of section 17-8n-12.
6. SE 160 acres of section 1-8n-12.
7. NE 160 acres of section 12-8n-12.
8. SE 160 acres of section 30-1s-9.
9. SW 160 acres of section 20-2n-9.
10. NE 160 acres of section 19-2n-9.
11. E½ of the southeast of section 30-2n-9.
12. SW-SW 40 acres of section 29-2n-9.
13. SE 160 acres of section 8-4n-8.
14. SW 160 acres of section 9-4n-8.

J. H. Satterwhite, manager for Westcott & Greis, headquarters in Tulsa, has been in Los Angeles the past two weeks visiting the new branch established at 1960 Santa Fe Avenue in Los Angeles. He will return this week to Tulsa.

Humble Wins in Texas Anti-Trust Suit

Standard ownership of stock held not to be in violation of law by court of Civil Appeals

Austin, Texas, Nov. 27.—Corporations organized under laws of Texas may finance their projects and business enterprises through sales of stock to foreign corporations without danger of the Texas courts holding that a foreign corporation is operating in the state without a permit through a domestic corporation acting as agent, according to the decision of the State supreme court rendered in the case of the State vs. The Humble Oil & Refining Company.

The State was denied the writ of error by which it tried to have the court review the action of the Travis county district court and the third court of civil appeals at Austin against the Humble. Decisions given by both of the courts were favorable to the company.

Although the Humble admitted the Standard of New Jersey owned part of its stock, it contended that such ownership did not mean the company was operated by the Standard in Texas.

August 28, 1923, the State of Texas filed suit against the Humble to enjoin and refrain the company from doing business in the State and to force the company to forfeit its franchise rights. The State also attempted to recover statutory penalties for alleged violation of the anti-trust laws of Texas.

Citing the court's decision against the combination of the Standard and the Magnolia and others in 1913, the State contended that the Standard of New Jersey was forever prohibited from doing business in Texas, until it complied with article 7805 of the statutes fully. The State also claimed that the Standard had never obtained permission or the right to return.

Judgment of the district court of Hunt county in the Magnolia case which was used in the case against the Humble was:

"First: That the Standard Oil Company of New Jersey, a corporation under the laws of New Jersey, is guilty of violating the anti-trust laws of the State of Texas for a period of time prior to the 26th day of October, A. D. 1909, and that by reason thereof the plaintiff, the State of Texas, do have and recover of and from the said Standard Oil Company of New Jersey penalties in the sum of $500,000 and all costs of suit; and in addition thereto the plaintiff shall also recover all expense incurred by the attorney-general and under his direction incident and pertaining to the bringing and prosecution of this suit, which amounts to the sum of $1,397.27; the said amounts so awarded to the State being for violations of the anti-trust laws of the State of Texas found under the agreement filed herein on divers and sundry dates prior to the 26th day of October, A. D. 1909; that this said judgment for said amount and sums of money shall be in full satisfaction of any and all demands of the State of Texas for violation of the anti-trust laws by said defendant at any and all times prior to the 26th day of October, A. D. 1909. Upon said agreement it is further ordered, considered and adjudged by the court that the defendant, Standard Oil Company of New Jersey, is not guilty of the charges of violating the anti-trust laws of the State of Texas at any time since the 26th day of October, 1909, and as to any and all charges contained in said petition of any such violations after said date that the said defendant, the Sandard Oil Company of New Jersey, go hence without day, and that the State take nothing by its suit.

"Fourth: It is further considered, ordered, adjudged and decreed that excepting the judgment herein rendered in favor of the State of Texas against the Standard Oil Company of New Jersey, that the State of Texas recover nothing by its suit and that each and every one of the other defendants herein go hence without day.

"Seventh: It is further ordered that all injunctions heretofore granted in this cause be and the same are hereby dissolved."

In defense, the Humble contended that the Magnolia judgment was not an ouster and in no way prohibitory to the Standard's doing business in Texas. Further, as the stock of the Humble had been sold in reliance of repeated decisions of the State and Federal courts, that such stock ownership did not constitute doing business in Texas, the Humble contended it was but following legal precedent.

In 1917, the Standard of New Jersey acquired 50 per cent of the Humble's capital stock. Subsequently, through open market purchasers and from other owners, the Standard acquired more than 60 per cent of the stock of the Humble Oil & Refining Company, which was organized under the laws of the State of Texas. Since its inception, the Humble has continued as a Texas corporation, under control of the original directors, with such additions as its growth have warranted.

Judgment was given in favor of the Humble both upon the existing laws and facts. The State appealed the case to the court of civil appeals at Austin, which affirmed the previous decision of the district court.

The State presented two main contentions in its brief before the court of civil appeals: First, that the Standard Oil Company of New Jersey had been perpetually enjoined and prohibited from further doing business in Texas as a legal result of the judgment in the Magnolia case, and, second, that the Standard Oil Company, through the purchase and ownership of stock in the Humble Oil & Refining Company, was doing business in Texas in violation of

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law, using the Humble Oil & Refining Company as the means or agency by which it carried on its business in Texas.

The court of civil appeals disposed of both contentions of the State adversely to it, and in favor of the Humble Oil & Refining Company.

Upon this last question the court said:

"The mere fact that the foreign company had the power to control the domestic company by the election of the directors is not transacting business in Texas by such foreign company. In the case at bar, notwithstanding the Standard Oil Company of New Jersey owned the controlling amount of appellee's stock, still appellee, Humble Oil & Refining Company, was authorized to do business in Texas in its own name and maintained its separate legal entity, and did continue its business. We must conclude that under the facts in this case the Standard Oil Company was not doing business within this State in the meaning of the anti-trust laws, and that appellee, Humble Oil & Refining Company, was not under the facts of this case the alter ego, or the means or agency by and through which the Standard Oil Company of New Jersey was doing business within the State."

Decision of the court of civil appeals and of the trial court denied the State all relief prayed for against the Humble Oil & Refining Company, and absolved such company from violations of the anti-trust laws of Texas in connection with its stock relationships with the Standard Oil Company of New Jersey.

Following the decision of the court of civil appeals, the State filed a petition for writ of error to the supreme court of Texas, which was denied by the supreme court on November 26, 1924. This effectually closes the case, and determines it in favor of the Humble Company and against the contention of the State.

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Bureau Studies Accidents In Oklahoma Oil Fields

A study of 3800 separate accidents that occurred in the oil industry of Oklahoma in 1923 has been made by H. C. Fowler, associate petroleum engineer of the Department of the Interior, attached to the Bartlesville, Oklahoma, station of the Bureau of Mines. The accidents occurring in each of the departments of drilling and producing, pipe lining and refining were segregated, and the number of accidents, as well as the number of days lost time, computed for each department. The accidents in each department were then classified by causes. A graphic chart has been prepared to show the results of the compilation.

Bureau of Mines Surveys Salt Creek Developments

Interior Department engineers are making a survey of methods used for steaming oil by the different operating companies in the Salt Creek, Wyoming, field and are also conducting evaporation tests on gastight batteries. The electrification of the Salt Creek field is progressing rapidly.

Following the recent resignation of W. W. Scott, deputy supervisor for the Bureau of Mines in this field, J. W. Steele was promoted to deputy supervisor, and H. J. Lowe was promoted from district engineer at Fort Washakie to assistant deputy supervisor at Casper.

Study Application of Vacuum to Oil Wells

A special study of the application of the vacuum to oil wells is being made by Ben E. Lindsley, petroleum engineer of the Department of the Interior, attached to the petroleum experiment station of the Bureau of Mines, Bartlesville, Oklahoma. Mr. Lindsley recently studied the workings of the vacuum system used in shallow fields in the vicinity of Bartlesville and collected data to be used in making decline curves to show the effect of vacuum on production from various leases in this area. Data regarding the effect of vacuum on the gravity of the oil produced were also collected.

Magnolia's Line to Beaumont Revives Interest in Gas in Shreveport Area

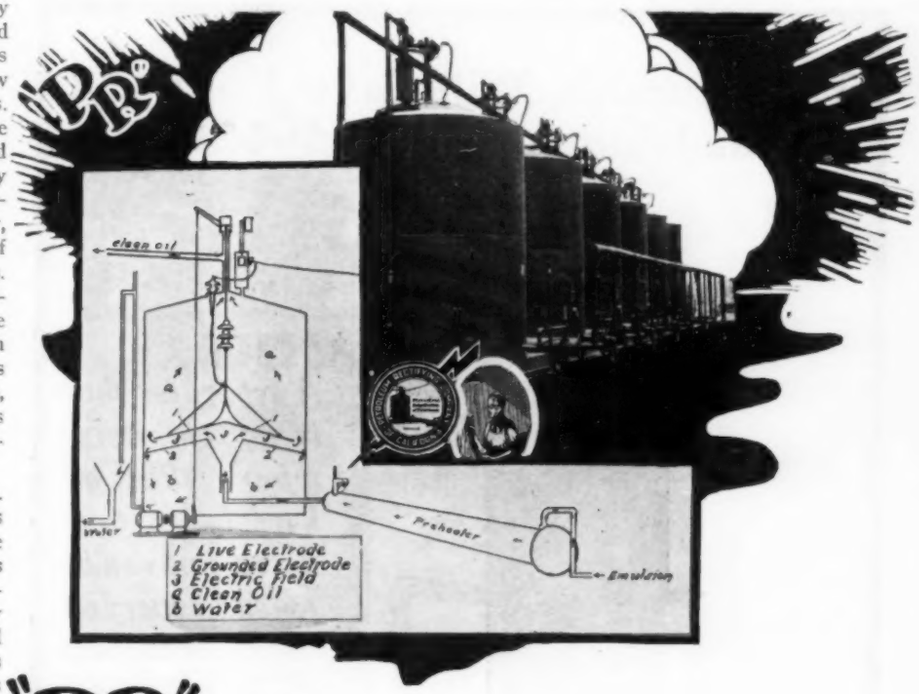
Shreveport, La., Dec. 1.—That the Cotton Valley Field is located in a freakish territory,—Webster Parish,—was again recalled to the minds of Louisiana operators by the completion today of a bone-dry gas well at a location offsetting three flowing oil wells in section 28-21-10, of the Southwest extension. The Louisiana Oil Refining Corporation's Nelson No. 1, located in the southwest corner of the northeast quarter of the section, was bailed in late this afternoon as a dry gasser from twenty-one feet of sand at a total depth of 2,567 feet. This unexpected development is explained in part, however, by the fact that the gas well encountered the top of the sand higher, and was finished at a shallower depth, below sea-level, than the offsetting oil wells. In addition, it tends to support the theory that only gas may be produced from the crest of the Cotton Valley structure, in that it is higher structurally than adjacent oil wells. However, it may yet develop oil production, if permitted to blow open for a few days. It offsets a 2500-barrel well, a 1500-barrel well, and a 500-barrel well. The latter well, the Gray extension, which produced the first oil in the section, is being drilled deeper with cable tools, probably in the hope of increasing its production to a par with that being obtained from deeper offsetting wells.

The Fortuna Oil Company's Cox No. 1, located on the southwest forty acres of section 15-21-10 and offsetting the Louisiana Oil Refining Corporation's original Lindsey extension, was swabbed in this morning. It is making only about 300 barrels of oil per day, and seems to lack the large quantity of gas present in the Lindsey well, which is flowing around 1000 barrels of oil per day, net.

The gas fields of this territory are getting a strong play now, in consequence of the construction of the Magnolia's line from Cotton Valley to Beaumont. Of fifteen wells completed last week in the fields of North Louisiana and East Texas, only one was an oil well; and the balance were gassers. The Shongaloo, Sarepta, Waskom, Panola, and even Elm Grove, fields are all experiencing a revival of activity, now that a better gas market is in prospect.

A gas well completed last week by Belchic & Laskey (Oil Fields Gas Company) on the property of the Pine Woods Lumber Company in section 33-23-11, showed a considerable spray of oil. Its location is in the vicinity of Lloyd Harris' famous "discovery well", which produced several thousand barrels of oil. It was announced here last week that Lloyd Harris, who pioneered in the development of the Sarepta field, has sold to the Oil Fields Gas Company a one-half interest in the gas rights under his block of leases, totaling 3700 acres. He retains all oil rights. Belchic & Laskey are rigging up another well, to be drilled in the same section.

Wetherbee and others have completed a 35 million cubic foot gasser in section 32-23-11; and the Bethany Oil & Gas Company (Southwestern), has brought in a well of similar size in section 1-22-10. The latter company is rigging up on another well, to be drilled on the Wiley land, in section 6-22-9, Webster Parish. This location is believed to be of considerable importance, because of the fact that it is on what may prove to be the southeastern slope of the Shongaloo structure. If located lower, structurally, than the gas wells which mark the crest of the Shongaloo "high," it may, conceivably, produce oil, as do wells located on the flanks of the Cotton Valley structure. Three different wells drilled in this township have yielded alluring showings of oil. It is thought that one was drilled at a point too high on the structure, and another at a location too low on its flanks, to produce oil in commercial quantity. The other, it is believed, was drilled too deeply into the



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sand; and produced gas, oil, and salt water.

J. K. Wadley, who in conjunction with the Louisiana Oil Refining Corporation drilled the first productive well in Webster Parish, has built a derrick for a well to be drilled on his Dickson lease, in the northwest corner of section 31-23-9. His location may be included in a triangle drawn through producing gas wells.

The Gulf Refining Company's Ferry Lake deep test, drilled in the bed of Caddo Lake, near Mooringsport, has been abandoned as unproductive at a total depth of 4,525 feet. Drilling has been begun in another well, to be known as Ferry Lake No. 219, in section 22-20-16. Well No. 215, on this same lease, which was completed as a 4000-barrel well on April 16, of this year, is still flowing more than 1900 barrels of clean oil per day through two ¾-inch chokes. It has made, since its completion, more than enough oil to fill ten 55,000-barrel tanks.

Senator L. V. Ulrey and others have built a derrick for another of their series of wildcats in the Pelican district, of De Soto Parish. Their current operation is located in the southwest corner of section 22-11-12.

Collins & Woodley are drilling below 2500 feet in their No. 1 Fortson, in section 28-21-5, of Claiborne Parish, which probably is the most important wildcat now drilling in the North Louisiana territory. The Claiborne-Lincoln Syndicate is drilling at 1050 feet in its No. 3 Fields, in section 22-19-5, of the same parish. Teh El Dorado Chief Oil Company has set 8-inch casing at 2101 feet in its McElwee wildcat, in section 13-22-7, north of Homer.

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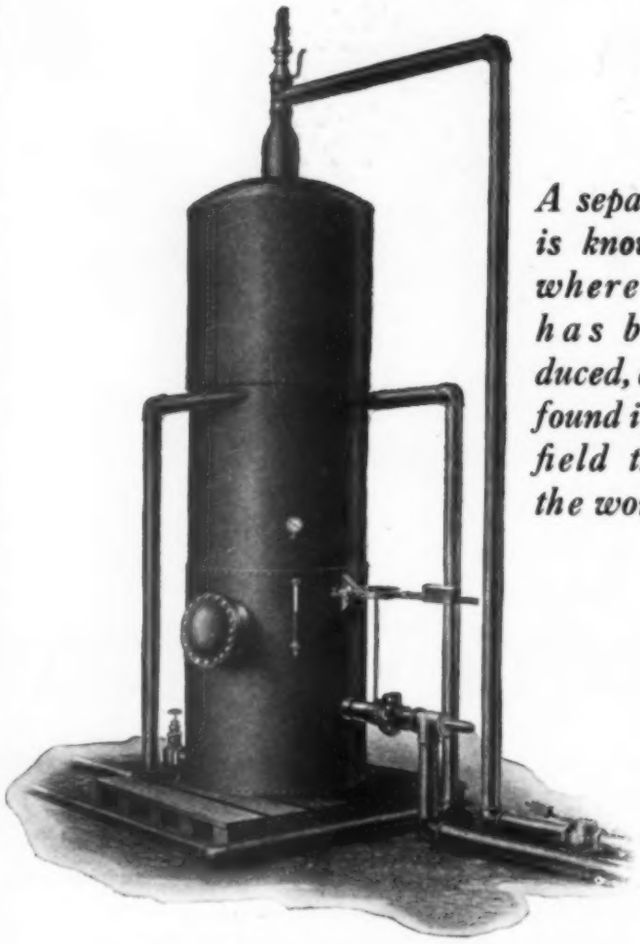

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Production From Deeper Sand Excites Smackover

El Dorado, Ark., Dec. 1—A great deal of excitement was caused here last week by the action of a well drilled to the 2300-foot sand by the Lion Oil & Refining Company in section 3-16-15, Union County. The well in question is located in the heavy oil section of the Smackover Field, where oil production is obtained from the 2000-foot sand, and only scattering gas from the deeper sand. A string of 4½-inch casing was set at 2278 feet; and the hole was drilled to a total depth of 2287 feet. When bailed in it flowed for a short time at the rate of 2000 barrels of fluid per day, of which half was oil and the balance salt water. It quickly went dead. When cleaned out and brought back in, it made increasing quantities of salt water until, according to last report, it was making only 3 per cent oil.

It is said that the Lion company will make an effort to repair this well, and will proceed at once with the drilling of another test on the same lease.

The light oil production in the Louann District is obtained from the 2300-foot sand.

Kirwan Relinquishes Post With Bureau of Mines

Bartlesville, Okla., Dec. 4.—Resignation of his position as superintendent of the Bartlesville branch of the Bureau of Mines, has been tendered by M. J. Kirwan. Mr. Kirwan is to become affiliated with the Indian Territory Illuminating Oil Company, as production engineer.

He has been in the Bureau of Mines at Bartlesville since 1921, first being in charge of the drilling and production departments. Late in 1923 he became acting superintendent, and in August of this year was named superintendent.

Since graduating from Lawrence University, Wisconsin, Mr. Kirwan has been actively engaged in work in oil fields. His experience has carried him far and wide. In 1908 he was with the Associated Oil Company, as engineer, in the Coalinga field, California. From 1913 to 1915 he was employed as a petroleum engineer in Fresno County and made a study of underground water in connection with the Coalinga Water Arbitration of Coalinga field.

He served as deputy and chief state oil and gas supervisor for California from 1915 to 1919. He then went to Japan with the Nippon Oil Company, and made a study of drilling and production methods in the various fields of Japan.

Program Announced for Fort Worth Meeting

(Continued from page 28.)

"Depletion—Depreciation and Reserves."

12:30 p. m.—Meeting Board of Directors (luncheon); Election of officers, etc. (Red Bird Room, Mezzanine floor.)

Afternoon, 2:30 p. m.—General Session: (Crystal Ball Room, 14th floor, Texas Hotel. "Helium Gas," Rear Admiral W. A. Hoffett, chief of the U. S. Navy Bureau of Aeronautics. "The Gasoline Demand of the Future," H. L. Horning, Waukesha Motor Company.

Evening 5:30 p. m.—Barbecue Dinner: (River Crest Country Club.)

Note—Automobiles will be assembled at the Texas and the Westbrook Hotels, to leave for the country club at 5 p. m.

8:30 p. m.—Rodeo: (Coliseum, North Fort Worth.)

Note—Automobiles will be ready at the River Crest Country Club to convey those present to the Coliseum.

Committee Meetings

Arrangements have been made by chairmen of various Institute committees to hold meetings at Fort Worth. Committee members will be governed by the formal notices sent them by their respective chairmen. The Institute is advised that the following committees will meet in the Texas Hotel at the time and place here specified:

Monday, December 8

9:00 a. m.—Committee on Standardization of Rotary Drilling Equipment (Rooms 333-35).

9:00 a. m.—Committee on Standardization of Wire Rope and Manila Cordage (Room 431).

9:30 a. m.—Committee on Standardization of Belting (Room 327).

9:30 a. m.—Advisory Committee on Testing Methods and Specifications for Petroleum and Its Products (Room 427).

10:00 a. m.—Committee on Standardization of Oil Field Boilers (Room 306).

1:00 p. m.—Special Technical Committee on Method of Testing Vapor Pressure (Room 427).

2:00 p. m.—Committee on Standardization of Rig Irons (Room 435).

2:00 p. m.—Informal Meeting of Committee D-2 of the American Society for Testing Materials (Room 331).

2:30 p. m.—Joint Committee on Education and Public Relations (Room 302).

3:00 p. m.—Committee on Fire Prevention and Protection to Life and Property (Room 427).

Tuesday, December 9

10:00 a. m.—Joint Meeting of the Committee of the Board of Directors and the General Committee on Standardization of Oil Field Equipment (Room 302).

3:00 p. m.—Car-Service Sub-Committee (Room 302).

Wednesday, December 10

2:30 p. m.—General Committee on Railroad Transportation (Longhorn Room No. 1, Mezzanine floor).

Conference of Supply Manufacturers

The Institute is requested to announce that manufacturers of, and dealers in oil-well supplies and equipment will hold a conference in the Crystal Ball Room, 14th floor, Texas Hotel, Fort Worth, Texas, Monday evening, December 8, to discuss the feasibility of the formation of a national organization and any other subject which may be of interest.

S. B. Sargent, president of the Sargent Engineering Company, headquarters in Los Angeles, departed November 30 for a tour of the Mid-Continent fields and will also visit several eastern points.

J. Edgar Pew Brings in Gas Well in Colorado

Denver, Colorado, Nov. 29.—A wildcat gas producer was brought in last Wednesday in Garfield County, Western Colorado, with an initial flow of 60 million cubic feet of dry gas at 2872 feet by J. Edgar Pew of Dallas, Texas. This gasser is located in section 8 T8N 102W, and the surface elevation of the location is reported to be 5424 feet above sea level. Mr. Pew, who is vice president of the Sun Oil Company, is scheduled to arrive at the well in a few days, and it will then be determined if the well is to be capped or drilled deeper in search of oil production. Approximately 2500 acres are held under lease by the Pew permit.

Use Ratigan "SURE-GRIP" Tools for Speed and Safety

Ratigan "Sure-Grip" Tubing Hook No. 17.

Ratigan "Sure-Grip" Hooks, Grips, Clamps and Catchers enable much faster work and eliminate danger of accidents, by providing a simple device that is easy to use, and absolutely safe in its operation.

Ratigan Hooks and Grips have set the pace in the oil fields. They are approved and recommended by the State Industrial Accident Commissioners. They pay for themselves quickly through safety and an increased volume of work accomplished.

If you are not thoroughly familiar with Ratigan "Sure-Grip" Appliances, send for the Ratigan Catalog immediately.

J. P. RATIGAN

1213 Santa Fe Avenue

LOS ANGELES, CALIFORNIA

Completions for Past Week in U. S. Fields

Texas

ARCHER COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Roy I. Carter et al J. H. White 13-E	150	1616
J. H. White 1-F	*	1640
L. H. Choate et al L. C. Herron 1	*	1505
Cullum & Perkins (was E. S. Carey) J. S. Bridwell 3	375	1141
Consolidated & Panhandle Ref. Co. Beardson Estate 5	150	1080
W. J. Ragle 3-E	255	1094
N. D. Goldsmith et al F. Young 1	*	1210
Gulf Prod. Co. J. L. Logan 1	15	1268
P. F. Gwynn et al M. E. Rogers 1	250	1279
J. I. Harvey et al W. J. Kunkle 1	*	1500
Hobbs & Barclay S. Russell 1	*	1402
Humphries et al J. H. White 11	300	1610
Murchison-Fain & Marland Oil Co. T. L. Griffin 2	130	1296
T. L. Griffin 4	125	1290
Oil Investment Co. Fee 1	45	1106
Ray & Massey E. A. Hausler 4	260	1130
E. A. Hausler 5	250	1133
Robertson-Ross et al J. H. White 12	195	1608
J. H. White 13	175	1608
J. H. White 21	65	1614
Simms Oil Co. W. F. Parrish 3	120	1589
R. E. Farmer 1	*	1651
Texhoma Oil & Ref. Co. E. A. Hausler 5	200	1143
E. A. Hausler 6	*	1400
E. A. Hausler 7	300	1131
Lee Wilson et al Beardson Estate 6	375	1085
Woodburn Oil Corp. (Simms) L. F. Wilson 14-A	60	1627

DESDEMONA-GORMAN

Company, Well and Location	Initial Production Bbls.	Depth
Fain et al McKeehan Heirs 1, (Comanche County)	65	2824

RANGER-EASTLAND

Company, Well and Location	Initial Production Bbls.	Depth
Keough Bros. et al Gooch 10	40	2515
Magnolia Pet. Co. P. O. Harris 6	125	1447
Mid-Kansas Oil & Gas Co. Harrell 6	*	3670
Mexia-Star Oil Co. Judd 1, dd	¶2	2830
Pittman, Barker & Adams Ford 2	10	1470
McMinn 1	40	1478
Teatsorth et al Scott 1	15	1488

STEPHENS COUNTY

Company, Well and Location	Initial Production Bbls.	Depth
Christie Bros. et al Humphries 4	30	2180
Foster & Roeser Gardner 2	†	3223
Humble Oil & Ref. Co. O'Laughlin 1	*	3835

ELECTRA

Company, Well and Location	Initial Production Bbls.	Depth
Gulf Prod. Co. Burnett Estate 27-A	75	1522
Magnolia Pet. Co. S. E. Honaker 65	20	1038
Texhoma Oil & Ref. Co. Burnett Estate 12-B	110	1824
Texhoma & Perkins Burnett Estate 5-A	145	1820
United Prod. Co. Fouch-Jennings 4.	20	1585

K-M-A AND IOWA PARK

Company, Well and Location	Initial Production Bbls.	Depth
Clifford Mooers et al Allen & Kemp 2, dd	*	1747
Rubsam & Hunter McClure 3	30	794

GULF COAST

Company, Well and Location	Initial Production Bbls.	Depth
Spindletop—		
Gulf Production Co. 209 Gladys	200	860
Saratoga—		
Rio Bravo Oil Co. 212-B	5	1025
E. W. Skinner Booker 1	15	1010
Batson—		
East Batson Oil Co. Texas Co. 1	5	1145
S. R. Buchanan Oil Co. Millhomme 78	10	1055
Millhomme 80	7	475
Goose Creek—		
F. B. West Oil Co. Wright 5	75	1600
Sour Lake—		
Earl C. Hankamer & Co. Brown 2.	*	1495
J. S. Jackson Trustee Fee 3	*	1245
Hull——		
Gulf Production Co. Phoenix Dev. Co. 8, wo	400	2370

NORTH TEXAS

Company, Well and Location	Initial Production Bbls.	Depth
Hunt County—		
Gulf Production Co. Cannon 1	*	3320
Richland District—		
John Hoosier Brown 5	200	3007
G. I. Moore et al Bledsoe 1, wo	*	3605
Richardson et al Millican 1	*	3195
Wortham District—		
Boyd Oil Co. Simmons 1	11,000	2970
Boyd 1	750	3007

EAST TEXAS

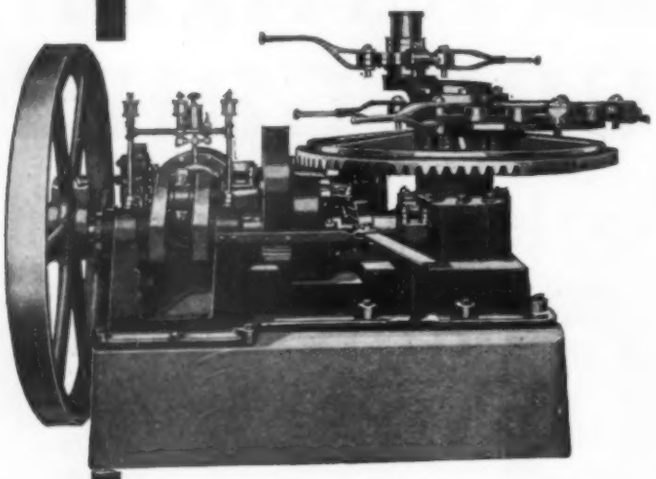
Company, Well and Location	Initial Production Bbls.	Depth
Waskom Gas Field Harrison County—		
Johnny B. Greer et al's Abney 1, J. J. Blair sur.	¶9	955
Howze Drlg. Co.'s Bryson 1, E. Pollack sur.	¶9	948
Morefield & Tanner's Lindsey-Bell 1, J. Lipscomb sur.	¶12	967
State Line Oil & Gas Co.'s Taylor 1, T. D. Wilson sur.	¶20	1950
Waterman 5, E. Pollack sur.	¶16	940
Total, 5 wells	¶66	
Panola Gas Field, Panola County—		
Glassell et al's Douglas 1, Lacy sur.	¶4	997
Thompson et al's Trosper 1, J. Thorpe sur.	¶4	1003
Total, 2 wells	¶8	

Mountain States

WYOMING

Company, Well and Location	Initial Production Bbls.	Depth
Salt Creek—		
E. T. Williams' Sullivan 1, SW¼ 11-39-79	50	2350
Salt Creek Consolidated No. 27AX, NW¼ 2-39-79	340	1680
Mountain & Gulf's No. 16A SE¼ 13-40-79	160	2107
Midwest Oil Co.'s No. 14 SE¼ 16-40-79	350	1132

Patent applied for



Pattin 4-cycle Gas Engine geared direct to single eccentric and disc pumping power.

Equivalent to double eccentric. Makes possible perfect balancing of wells without swings. For wood or concrete foundation. Perfectly concentrated power, eliminating belts, and doing away with the large power house.

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"PATTIN POWER"

Summarized Review of Field Results

State—	Completions This Week	Completions Last Week	Producers This Week	Producers Last Week	Gas Wells This Week	Gas Wells Last Week	Failures This Week	Failures Last Week	Initial Production This Week	Initial Production Last Week
Oklahoma	72	54	41	35	5	4	26	15	13,086	20,722
Kansas	6	15	3	3	2	..	1	12	165	215
Texas	76	100	48	51	9	11	19	38	17,272	10,660
Arkansas	20	13	13	8	1	..	6	5	655	875
Louisiana	15	10	3	1	7	5	5	4	1,875	65
Eastern States	210	163	114	101	63	33	33	29	2,605	1,137
Mountain States	9	1	5	1	..	..	4	..	1,067	275
California	18	19	18	19	..	..	..	..	8,800	8,760
Totals	426	375	245	219	87	53	94	103	45,525	42,709

Note—Following is the explanation of abbreviations, signs, etc., used in completion and wildcat reports: *—dry hole, abandoned well; ‡—salt water; †—junked and abandoned; ¶—million cubic feet of gas; abn—abandoned; bbls—barrels; b. s.—basic sediment; cas—casing; co—cleaning out; dk—derrick; dr—drilling; fsh—fishing; ft—feet; in—inches; lcn—location; m—milling; N. S. E. W.—North, South, East, West; r—reaming; sd—shut down; sdtr—sidetracking; sp—spudded; sr—straight reaming; std—standardizing; sw—salt water; td—total depth; ur—under reaming; wo—workover; wosr—waiting on standard rig.

Company, Well and Location	Initial Production Bbls.	Depth
Wyoming Associated's No. 36A, NE¼ 15-40-79	157	2273
North Casper Creek—		
Columbus Oil Co.'s No. 1, 7-36-81	*	3400
Lost Soldier Field—		
Kasoming Oil Co.'s No. 4B, 14-26-90	*	2415
MONTANA		
Johnson-Signal Synd.'s Corey 2, 4-34-2	*	....
COLORADO		
Pueblo County—		
Ohio Oil Co.'s No. 1, 25-21-64	*	1741

Louisiana

Company, Well and Location	Initial Production Bbls.	Depth
Elm Grove Field, Bossier Parish—		
Arkansas Natural Gas Co.'s Van Hook A-3, 31-16-11	¶21	1898
Skannal et al's McDade 2, 10-17-12	¶2	2479
Total, 2 wells	¶23	
Cotton Valley Field, Webster Parish—		
Moffett & Murphy's Coyle 1, 28-21-10	1500	2577
Monroe Gas Field—		
Southern Carbon Co.'s Fee 39, 29-19-5e, Ouachita Parish	¶1	2266
Fee 41, 7-19-5e, Ouachita Parish	¶2	2155
Total, 2 wells	¶3	....
Sarepta Gas Field—		
Belchic & Laskey's Pine Woods Lumber Co. 5, 33-23-11, Webster Parish	¶15	2688
Bethany Oil & Gas Co.'s R. Wiley 1, 1-22-10, Webster Parish	¶35	2631
Wetherbee et al's Bolinger 1, 32-23-11, Bossier Parish	¶35	2664
Total, 3 wells	¶85	

Arkansas

Company, Well and Location	Initial Production Bbls.	Depth
Smackover District, Ouachita County—		
Burton Trust's Hughes 10, 28-15-16	65	2295
Houston Oil Co.'s Hughes 7, 28-15-16	100	2262
Forrest Oil Co.'s Cramer 8, 27-15-16	25	2287
Mullens 1, 28-15-16	*	2100
Mullens 4, 28-15-16	5	2000
Johnson Drilling Co.'s Richie 1, 21-15-16	*	2575
Marine Oil Co.'s Hayes 2, 4-16-15	75	1967
Meeks Trust's Laney 2, 30-15-15	75	2023
Miller & Winger's Hardin 2, 28-15-16	45	2255
Morris et al's Mullens 2, 27-15-16	40	2288
Standard Oil Co.'s S. Umstead 12, 33-15-15	*	1972
Sun Co.'s Hardin 1, 27-15-16	125	2253
Smackover Field, Union County—		
Gladys-Belle Oil Co.'s Thompson A-1, 7-16-15	20	2052
Ohio Oil Co.'s Scott 4, 19-16-15	15	2117
Standard Oil Co.'s Lingelbach 8, 22-16-15	35	2011
The Texas Co.'s Alphin 5, 3-16-15	¶20	2315
Sutherland et al's Neeley 3, 1-16-17	40	2265
Total, 17 wells	¶20-655	

California

Company, Well and Location	Initial Production Bbls.	Depth
Dominguez—		
Shell Co.'s Reyes 18	3025	4244
Manual 3	4300	4265
Marland Oil Co.'s No. 3	1200	4294
Union's Callender 5	100	4872
Rosecrans—		
E. J. Miley's Athens 2	750	4707
Associated's Wanka 1	2050	4428
Union's Rosecrans 1	375	4041
Howard Park 2	150	4700
Long Beach—		
Bolsa Chica's Mutual 3	850	3858
Torrance—		
Superior's Joughin 51	165	3820
C. C. M. Oil Co.'s Torrance 69	30	3730
Midway—		
Balboa Oil Co.'s No. 31, sec. 24-31-23	325	3760
Brookshire Oil Co.'s 13, sec. 24-31-22	80	2538
Honolulu Cons.' No. 71, sec. 4-32-24	350	3776
Little Bear's No. 1, sec. 2-32-22	*	3000
Midlands Oilfields' No. 12, sec. 24-31-23	650	3860
North American's No. 11, sec. 30-31-24	1000	3779
Pacific Oil's No. 24, sec. 33-31-24	900	4514

Kansas

Company, Well and Location	Initial Production Bbls.	Depth
Cowley County—		
Nathan et al's Goff 1, C NE NE NW 20-34-4	¶	622
Jarvis 2, C NW NW NE 20-34-4	¶	662
Trees Oil Co.'s Shaffer 1, C SE SE NE 10-31-3	75	3054
Waite Phillips et al's Alexander 1, C SE SE SE 4-33-3	*	3614
Greenwood County—		
Mission Oil Co.'s Thrall 5, C W L SW 32-23-10	70	2296
Roth & Faurout's Biskitt 2, NWc SE NW 12-25-8	20	2261

Oklahoma

Company, Well and Location	Initial Production Bbls.	Depth
Burbank Field—		
Carter Oil Co.'s No. 11, SWc SW SE 16-26-6	410	2963
Lyman 12, C SW NW NW 11-27-5	302	3032
Phillips-Skelly's No. 13, C E L NE SE SE 26-27-5	20	2988
Skelly Oil Co.'s Revard 2, C E L SE NE NW 35-27-5	20	2964
Carter County—		
Texas & Pacific's Parnell 9, C S L SW SW 9-1-3w	90	1556
Magnolia Pet. Co.'s Orr 9, C NW SE NW 16-1-3w	25	1683
Smith 5, C SW NW SW 24-2s-3w	10	2147
Humble O. & R. Co.'s Lusk 2, C NW NW NE 33-1s-3w	190	3110
Twin State Oil Co.'s Williams 4, C SW NE SW 23-2s-3w	75	2923
Lone & Thompson's Williams 2, C NE NW NW 34-2s-3w	¶	3191
Caddo County—		
English's Headlund 4, NEc SW NE 11-5-9w	40	2391
Creek County—		
Buel & Bartlett's Narchubby 1, NEc NW NW 26-15-8	*	2846
Oklahoma P. & R. Co.'s Kernal 2, SEc SE NE 30-14-8	860	3418
Roland Oil Co.'s Jefferson 1, SWc SW NE 7-15-9	*	3661
Mount & Clay's Davis 1, SWc NW SW 21-15-9	*	3737
Tom Kelly's Adams 2, C W L SW NE 4-14-10	270	3218
Waite Phillips Harjo 1, SEc NE NE 31-14-10	300	3449
Suppese et al's Marshall 1, NEc SW SW 8-16-12	10	2208
Marshall 2, NEc SW SW (Twin well) 8-16-12	200	2080
Wilcox O. & G. Co.'s No. 1, Lot 8, Blk. 30, NWc 8-16-12	40	2063
Twin State Oil Co.'s Cosar 1, NWc NW SE 7-14-7	110	4150
Prairie O. & G. Co.'s Carr 1, SWc SW NE 7-14-7	*	4177
Stebbins O. & G. Co.'s Canton 1, NEc NE SE 16-14-7	*	4057
Olean Pet. Co.'s Wills 2-A, C E L NE NE 6-16-8	50	3622
Bu-Vi-Bar's Harjo 1, C SW NE 18-17-9	*	2784
Associated P. & R. Co.'s No. 8, C E L NW SW SW 13-18-12	*	515
Madden & Madden's Bishop 1, SWc 13-17-8	70	2325
Jomach Oil Co.'s Childers 3, SWc SW SE 9-16-9	*	3104
S. J. Smith's Fife 1, NWc NW SW 3-17-11	¶	1812
O. M. Ireland et al's Freeman 1, SWc SW SE 8-17-11	25	2609
Garfield County—		
Bullock et al's Duke 1, SWc SW NE 17-23-8w	*	650
Sinclair O. & G. Co.'s Kisner 12, NWc NW NE 19-22-3w	50	2153
Hughes County—		
Gilcrease Oil Co.'s Brown 3, C NW SE SW 17-9-9	*	3020
Wilcox O. & G. Co.'s Brown 1, C SE SE NW 17-9-9	*	3165
P. & R. Co.'s Beaver 1, C NW NE 15-7-8	*	1580
Muskogee County—		
E. A. Hutchinson's Lee 1, C E L NW SE 35-15-6	*	1545
Okmulgee County—		
Sheridan O. & R. Co.'s Sallee 2, C E L NW NW SW 3-15-11	90	1998
Beggs O. & G. Co.'s Grayson 2, NWc NE SW 3-15-11	30	1910
Wheeler & Wilder's Tell 1, SWc SW SE 5-15-11	*	3044

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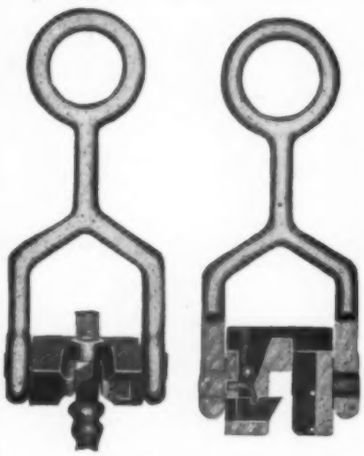

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212 S. Norfolk
Tulsa, Okla.

Phone Cedar 1727 — Night Phones Cedar 1411 and 1325 R.

Company, Well and Location	Initial Production Bbls.	Depth
J. W. Holden's Tiger 1-A, C E L SE SE NE 24-16-12	*	2530
Mid-Kansas Oil & Gas Co.'s Sneed 1, C NW NW NE 5-14-13	*	2780
Osage County—		
Price Oil Co.'s No. 1, NWc SE NE 17-27-11	*	1979
A. M. Landon's No. 1, SWc SW NW 30-27-12	*	1657
Knupp Oil Co.'s No. 1, NEc 10-26-11	*	1734
C. K. Dresser's No. 3, C N L SW SW 5-23-11	*	1640
Pawnee County—		
Vick Oil Co.'s Miller 1, SEc SE SW 4-20-7	65	2629
Cosden O. & G. Co.'s School land 5, C W L NW NW NW 16-20-7	30	2619
School land 6, SWc NW NW 16-20-7	62	2636
Payne County—		
Mulberry Oil Co.'s No. 2, SEc SW SE 23-18-4	6	3840
Pushmataha County—		
Rausan & Vasburgh's Jordan 1, C W L SW NE SW 3-2s-15	*	1007
Rogers County—		
J. H. Middleton's Hobbs 1, SWc SE NE 30-22-14	20	1275
Seminole County—		
Sinclair-Transcontinental's Bunner 6, C NW NW SW 9-10-8	2280	3480
Bunner 8, C NW SW SW 9-10-8	1400	3481
Carter Oil Co.'s Brown 2, C SE NE SW 10-10-8	204	3544
Hill 1, C NE NW NE 9-10-8	1000	3425
Hall 1, C NE NE NW 9-10-8	665	3520
Prairie Oil & Gas Co.'s Buckner 3, C NE SW SE 8-10-8	300	3529
W. R. Ramsey's Salinda 1, C NE NW SE 31-8-8	1017	3242
P. & R. Co.'s Salinda 2, C SE SW NE 31-8-8	1200	3263
Amos 2, C NW NE SE 31-8-8	1200	3240
Boggs Oil Co.'s Willia 3, C SW NE NE 31-8-8	100	3214
Amerada Pet. Corp.'s Joseph 2, C SE SW NE 29-8-8	*	3195
Tulsa County—		
Thorton et al's Berry 1-A, C S L SE SW 20-19-12	80	2038
Elo Oil Co.'s Murphy 1-A, NEc SE SW 29-20-13	¶	1860
Murphy Oil Co.'s Stewart 1-A, NWc NW SE 25-17-12	*	2460
I. L. Corbin's Musselman 1, NWc SE SW 36-21-13	*	1210
Keater & Hyer's Elliott 1, SEc SE NW 17-21-14	*	1667
Elo Oil Co.'s Johnson 1, C W L NE NW 28-20-13	¶	1840
Martin & Martin's Murphy 1-A, NEc NW SE 29-20-13	¶	1850
Echo Oil Co.'s Grayson 4-A, SWc NE SE 5-19-12	80	2040
Bell O. & G. Co.'s Berryhill 1, NWc NE SE 5-19-12	90	2040
H. C. Wilson's Townsite 1, C E L SE SE 5-19-12	*	2150

Eastern States

PENNSYLVANIA

Company, Well and Location	Initial Production Bbls.	Depth
Bradford Field—		
Nichols & Potter Kating 1	3	....
Joseph Minnich Morse 1	3	....
Hope Oil Co. Sill 1	3	....
Yeager & Wilson Franchot 4	2	....
G. Schoff, Schoff 1	3	....
W. E. Burdick Skinner 1	3	....
Lane & Co. Bingham 371, tract 1	2	....
E. & F. Shipley, Shipley 10	2	....
Landers & Co. Landers 29	2	....
W. B. Miller Borden 1	3	....
E. M. Daley Loop 1	2	....
Schorman & Co. Schorman 1	3	....
Burns Bros. Baise 1	2	....
W. A. Bolles Borden 1	2	....
K. Nolan, Nolan 1	3	....
McDowell & Andrus Bingham 1	2	....
A. Park, Park 1	2	....
Mrs. T. J. Jones Bryner 1	4	....
Camp Estate Bingham 1	2	....
Leech & Co. Leech 1	2	....
Knabb & Hertzel Griffith 1	3	....
Pressure Oil Co. Doubleday 1	2	....
T. B. Wilson Borden 1	2	....
Hazlewood Oil Co. Gibson 1	2	....
Enterprise 1	2	....
A. J. Bucher Chambers 1	2	....
J. H. Gibson Willett 1	2	....
Venango County—		
Leedom & Co. Miles 3	2	....
White & Corbett White 2	2	....
Gibbs & Henderson Plumer 15	2	....
Sweetapple & Co. Sweetapple 33	2	....
Louden & Co. Collins 29	2	....
S. Y. Ramage Hollister 43	2	....
C. B. Kern, Kern 7	2	....
Irwin & Thorn Hovis 15	2	....
Goltz & Wilbur Lyle 49	2	....
McCandless & Co. Gilmore 14	2	....
Roess Bros. Roess 54	2	....
Butler County—		
Garvin & Co. Cookson 1	2	....
Edeburn & Co. Neel Heirs 1	2	....
A. C. Snow, Snow 1	*	....
Burkett & Co. Bell Heirs 1	2	....
Hovis & Co. McKinney 1	2	....
Hindman, Craig & Co. Bell 3	2	....
Center-Middle Field—		
F. J. Moser Lot 3767, tract 23	2	....
Gesen & Co. McHlafferty 1	*	....
Greene County—		
City Suburban Gas Co. Emma Iams 1	¶2	....
Philadelphia Oil Co. John Headley 1	¶2	....
Allegheny County—		
American Natural Gas Co. Pahlman Heirs 3	15	....
Beaver County—		
Coulter J. Cook J. E. Hineman 1	*	....

NEW YORK

Company, Well and Location	Initial Production Bbls.	Depth
Allegany County—		
Sawnett Oil Corp. Sawnett 1	2	....
L. A. Wilson, Wilson 1	3	....
Henline & Co. Henline 1	3	....
Empire Gas & Fuel Co. Empire 1	3	....
Wasson & Sawyer Wasson 1	2	....
Bradley & Carter Canfield 1	2	....
Huggins & Jordon Huggins 1	2	....
Withey & Co. Trask 1	2	....
Dustins & Co. Dean 1	2	....

TENNESSEE

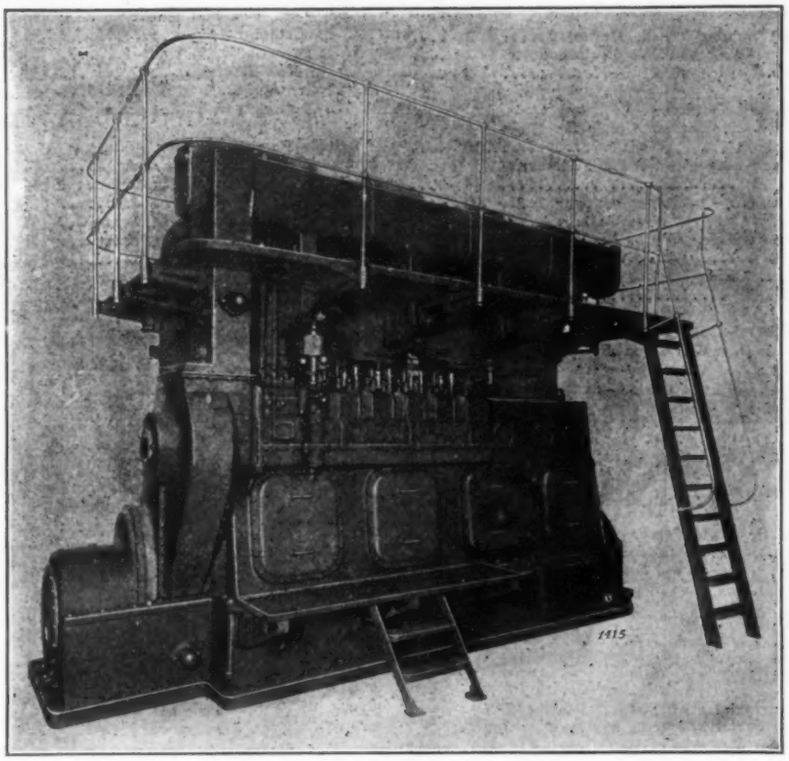
Company, Well and Location	Initial Production Bbls.	Depth
Clay County—		
Da Foe & Co. Ham Lynn 2	1000	433
Souls & Co. Patterson 3	*	700

NORTHWESTERN OHIO

Company, Well and Location	Initial Production Bbls.	Depth
Wood County—		
Modern Oil Co. A. Hartman 1	20	1295
Bert Ladd Joseph Lane 2	20	1364
Keiser, Brown & Co. Young 8	5	1326
Patton & Co. G. LaPlant 1	*	1330
Auglaize County—		
Fowler Bros. Pet. Co. Julian 2	30	1303
Young & Geselchen Cook 3	40	1305
C. Blair & Co. John Teeters 1	15	1307
Mercer County—		
Defenbaugh & Co. Snyder 1	¶4	574
McGuigan & Co. Pummell 1	*	1150
L. E. Matz & Co. P. Strable 2	*	1200
Shelby County—		
Osage Oil Co. E. Maurer 1	¶¼	800
T. E. Marshall & Co. Hoover 1	*	1200
Hancock County—		
Clark & Starr Powell 9	15	1317

INDIANA

Company, Well and Location	Initial Production Bbls.	Depth
Pike County—		
J. H. Sullivan O. Bauermeister 1	*	1385



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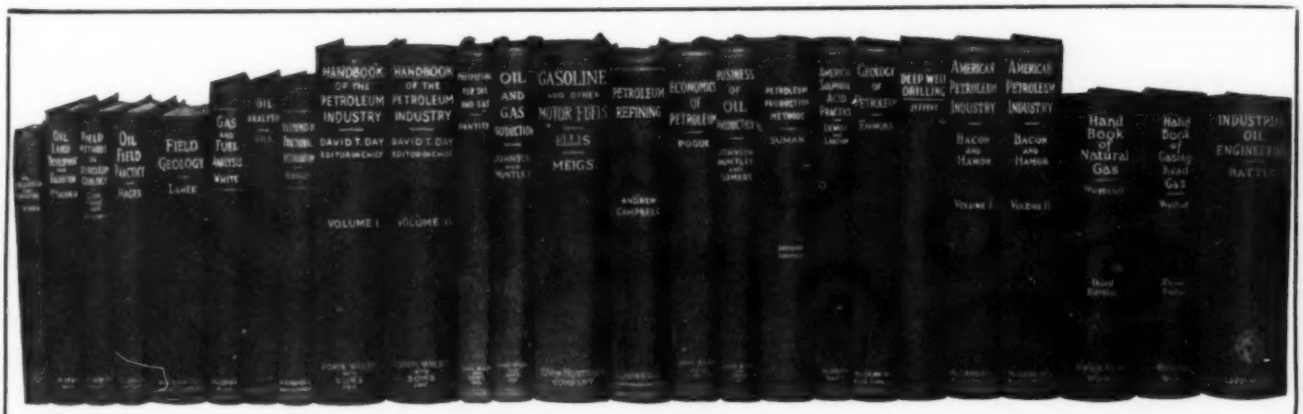

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ILLINOIS

Company, Well and Location	Initial Production Bbls.	Depth
Clark County—		
Boyd, Eaton & Co. J. Laigner 1..	35	486
Gillette & Co. W. Reisinger 1	40	1417
Coles County—		
Colegrove & Co. W. Roach 18....	15	625
Crawford County—		
C. C. Curtis & Co. M. Walker 1..	*	1100

CENTRAL OHIO

Company, Well and Location	Initial Production Bbls.	Depth
Knox County—		
East Ohio Gas Co. Charles Scholes 7	6	....
Charles Scholes 6	3	....
The Upham Gas Co. C. F. Beaman 4	¶¼	....
A. H. Heisey Gas Co. Marion Wolfe 1	2	....
F. M. Snyder W. B. Hansel 9	2	....
Snyder & Carson W. P. Bebout 20	2	....
W. P. Bebout 21	2	....
Licking County—		
Edward H. Everett Co. Felix Claypool 7	200	....
A. H. Heisey Gas Co. Lulu E. Weekley 2	35	....
Carter Oil Co. James Cartral 1....	60	....
Lydia Mercer 1	15	....
Ohio Fuel Supply Co. Noah Johnson 1	¶¼	....
Central Ohio Gas Co. G. W. Swinehart 1	*	....
Ashland County—		
Logan Gas Co. Dora Richards 1..	¶2	....
J. P. Calhoun 1	¶2	....
J. J. Brown No. 1, tract 1.....	¶3	....
Clara McMillan 1	¶¼	....
M. Snyder & Co. J. McFadden 3...	¶¼	....
W. L. Rohrer Sarah McFadden 1..	¶¼	....
Athens County—		
Logan Gas Co. S. J. Lowery 2....	¶1	1052
H. M. Waldron & Co. Kate Evans 1	¶½	1029
Rice Oil & Gas Co. Rice 4.....	¶¼	....
Pittsburgh Gas Co. T. McGraw 2..	¶1	....
H. W. Leeper & Co. J. Prent 2...	¶¼	875
McBride & Co. J. Varner 1.....	¶½	1140
Fairfield County—		
Sturms & Co. H. E. Morrow 1....	65	....
Packard Oil Co. Otto Coombs 1...	¶2	....
Holmes County—		
Carter Oil Co. S. H. Sterling 1....	25	....
Wayne County—		
Logan Gas Co. E. G. Clinker 1....	10	....
Meigs County—		
Ohio Fuel Supply Co. Robert Crow 1	7	....
Perry County—		
Atha Oil Co. Elmer Moore 1	¶1	....
Jackson County—		
Ohio Fuel Supply Co. G. W. Roach 1	2	....
Medina County—		
Hulse & Kundtz F. Cinco 5.....	*	....

WEST VIRGINIA

Company, Well and Location	Initial Production Bbls.	Depth
Ritchie County—		
Carnegie Nat. Gas Co. A. G. Kelly 1	25	....
Alva Markle 1	*	....
M. H. Jones 1	¶1	....
Hope Nat. Gas Co. D. W. Campbell 1	¶2	....
L. Wilson 1	¶2	....
Mike Golden 1	¶2	....
C. B. Lewis & Co. P. Simmons 1..	¶1	....
Southern Oil Co. F. Lemons Heirs 1	¶2	....
Ruth & Strong A. Delaney 2.....	¶1	....
Gilmer County—		
Hope Nat. Gas Co. C. H. Osborne 1	¶½	....
Bennett Heirs 1	3	....
J. Ward 1	3	....
F. C. Gainer 1	¶2	....
Ivan Snyder 1	¶1	....
Roanoka O. & G. Co. E. A. Childers 1	¶3	....
Hope Construction & Ref. Co. C. N. Snodgrass 1	¶2½	....
McCall O. & G. Co. G. W. Sager 2	¶2	....
Leroy O. & G. Co. A. E. Bailey 2..	¶2½	....
Pittsburgh & West Virginia Gas Co. M. E. Law 1	*	....
Carter Oil Co. John Hall 1.....	¶2	....
Calhoun County—		
C. L. Donaldson & Co. Frank Morris 1	¶1	....
G. L. Cabot Unknown 1	¶1½	....
Hope Nat. Gas Co. B. B. Ferrell 1	¶2	....
Henry Eddy & Co. Anna Daisley 1	¶2½	....
W. H. Bickle J. M. Bennett 1.....	¶2½	....
McIntosh & Miller J. R. Godfrey 1	¶2	....
Pleasants County—		
Big Bend O. & G. Co. Colvin 1....	2	....
Friendly O. & G. Co. Sarah Colvin 1	5	....
Johnson Oil Co. C. Cokley 1	2	....
G. F. Roberts, Roberts Bros. 1....	5	....
Harrison County—		
Hope Nat. Gas Co. Anna Duncan 1	*	....
J. A. Smith 1	¶½	....
Garrett, Lyons & Co. Chas. Lahan 1	¶2½	....
Marshall County—		
Manufacturers Light & Heat Co. Howard Heirs 2	¶2	....
W. & E. Ritter 2	¶1¼	....
J. & M. Reed 1	¶2	....

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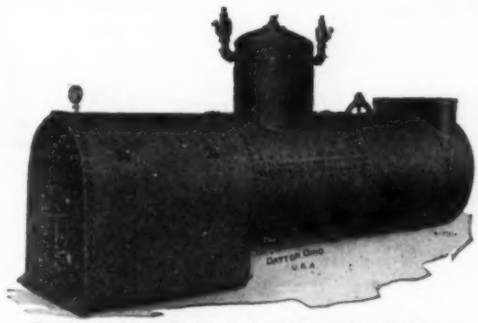
Company, Well and Location	Initial Production Bbls.	Depth
Lincoln County—		
Superior Gas Co. Travis Adkins 2	¶2	....
G. H. Adkins 5	¶2	....
Foote O. & G. Co., Milt Asher 1..	¶2	....
Wetzel County—		
Schultz & Fahey Wm. Stewart 1..	¶2	....
Cook Petroleum Co. Fried Tracey 1	¶3½	....
Kanawha County—		
Owens Bottle Machine Co. Kanawha Coal Land 19	¶¼	....
United Fuel Gas Co. Robinson-Pritchard 1	¶½	....
Wood County—		
Daniel Kelley E. A. Kennedy 15..	*	....
P. K. Kiefer A. B. Ingram 17.....	*	....
Boone County—		
Pure Oil Co. LaFallotte & Co. 24..	30	....
Lewis County—		
Pittsburgh & West Virginia Gas Co. J. W. Wilson 1	¶4	....
Marion County—		
Owens Bottle Machine Co. Jane Smith 1	¶3	....
Roane County—		
Fairview O. & G. Co. B. G. Stutler 1	*	....
Wirt County—		
George B. Vance Wm. Gibson 42..	*	....
KENTUCKY		
Lawrence-Johnson Counties—		
Union Gas & Oil Co. R. N. Sparks 1	80	814
W. O. Gambill 1	*	850
Townsend & Garrison C. K. Dobyne 4	60	794
Pluto Oil Co. Robt. Fyffe 5	4	....
M. W. Larkin & Co. G. Salyer 3...	1	....
Lee County—		
Hupp, Duff & Co. J. E. May 1	75	1488
Carter Oil Co. Brandenburg 1	12	1072
Beamer & Co. Price 1	*	....
Owsley County—		
Benjamine Fleming E. Evans 1 ...	200	....
Congelton & Marcum Rowland 1..	5	....
Unknown Parties T. F. Hale 1....	*	....
Barren County—		
Smith & Son L. H. Nichols 5....	4	406
Bishop & Son Bishop 2	4	300
T. L. Gorby G. Lessenberry 2.....	3	480
Allen County—		
Davis & Co. M. Dodson 2	*	306
Neeley & Peerson Dodson No. 2, tract 1	*	290
W. R. Thompson & Co. W. L. Motley 7	*	381
Warren County—		
Da Foe & Co. A. Reynolds 5.....	4	518
Bannon & Stewart Cox 20	5	507
Johnson-Magoffin Counties—		
Burning Fork Oil Synd. C. Roark 8	32	1068
Pure Oil Co. Unknown 1	¶5¼	....
Magoffin Dev. Synd. Julia Salyer 2	10	....
Menifee County—		
W. O. Bach & Co. Gilson Bach 1..	*	780
W. O. Bach & Co. Gil Bashford 1	*	760
Estill County—		
Pratt & Scott Irvine 6	30	1200
Powell County—		
W. E. Hupp Trustee Mays 15.....	30	693
Wolfe County—		
Federal Oil Corp. E. B. Roberts 3	30	1200
Fleming County—		
Hawkins & Co. Pierce 4	5	296
Elliott County—		
T. J. Evans G. W. Kapples 2.....	2	1200
Wayne County—		
Bowden & Co. L. N. Morrow 2	*	803
Breathitt County—		
Petroleum Exploration Co. Hurst 4	¶2	....
SOUTHEASTERN OHIO		
Washington County—		
Ross Bros. H. C. Waggoner 3....	¶1	....
Savage & Co. D. B. Mullines 3....	¶½	....
H. B. Goddard Mary A. Proctor 3	¶4	1206
O. O. Kinsey & Co. Coal Lands 4..	2	....
B. H. Reynolds & Co. Adam Haas 4	2	....
Muskingum County—		
Ohio Fuel Gas Co. Wm. Schell 1..	*	....
H. G. Flack & Co. J. W. Wagner 2	2	....
S. J. Bogard & Co. L. Masters 1..	*	....
Jacob W. Rothley & Co. Conrad Winger 1	*	....
Noble County—		
S. P. West & Co. Charles Reed 2..	*	500
H. A. Hendershot & Co. John Nau 10	3	....
John Kemp & Co. Wallace Kirk 1	2	....
Morgan County—		
The Sun Co. Grant Bailey 6	125	....
Belmont County—		
Unknown Parties N. J. Pfeffer 1..	4	....
Monroe County—		
Carter Oil Co. E. F. McCaslin 2..	¶½	....
Guernsey County—		
Ohio Fuel Gas Co. H. Cornelious 1	¶¼	....
Coshocton County—		
Ohio Fuel Supply Co. C. Williams 1	*	....



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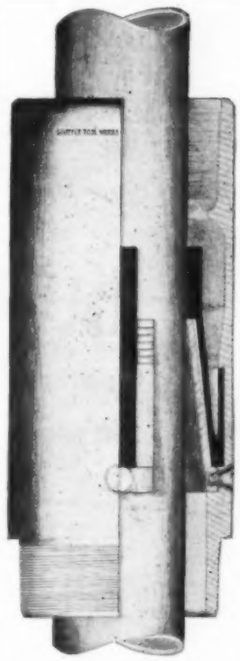

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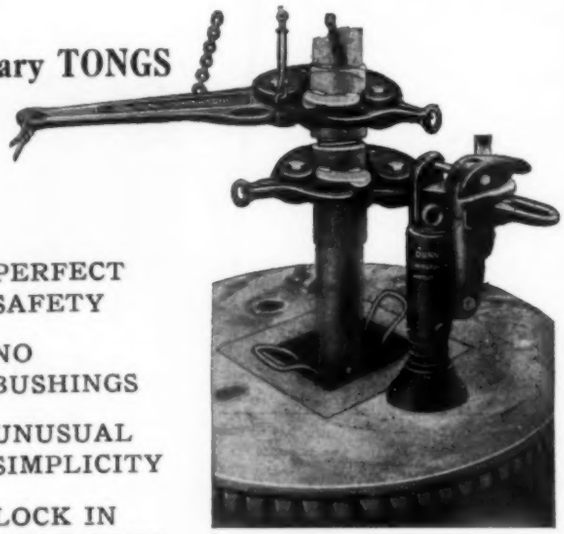

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Kern River Field—Section Five Oil Co.'s No. 7-A, 9-29-28. H. R. Wiseman's Faith No. 2, 26-28-28.

Long Beach Field—South Slope Oil Co.'s O'Donnell No. 36, 24-4-13.

Los Angeles County — Pan American Pet. Co.'s Sentous No. 1, 17-2-14.

McKittrick Field—Washington Pet. Corp.'s No. 3, 8-30-22.

Montebello Field—McGinley Oil Co.'s No. 19, 6-2-12.

Rosecrans Field—Union Oil Co.'s Jamison No. 1, 18-3-13. Petroleum Midway Co. Ltd.'s Folsom No. 1, 7-3-13.

Torrance Field—Marine Oil Corp.'s No. 50, 25-4-14. Standard Oil Co.'s Marble Fee No. 30, 15-4-14. Fullerton Oil Co.'s Cotton No. 9, 16-4-14.

ARKANSAS

Hempstead County—J. C. Wooten's Walker 1, 22-11-24, in NE¼ NE¼.

Nevada County—Keystone Oil Co.'s Moss 1, 7-14-20, 660 ft S and W of Center of Sec.

Ouachita County—Burton Trust's Hughes 3, 28-15-16, old well to be deepened, 200 ft S and E of NWc SE¼ NW¼; Forrest Oil Co.'s Craner 12, 27-15-16, old well to be deepened, 200 ft N and W of SEc NE¼ NW¼; C. Minor 3, 20-15-16, 337 ft N and 265 ft E of SWc SW¼ SE¼. Hunt et al's Myatt 1, 22-15-17, 200 ft N and W of SEc of Section. Mado Pet. Co.'s Fincher 2, 29-15-16, 200 ft N and E of SWc NE¼ SE¼. Roxana Pet. Co.'s Snyder 2, 34-15-15, 200 ft S and E of NWc NE¼ SW¼. Staves et al's Jeffus 3, 26-15-16, 200 ft N and W of SEc NE¼ SE¼.

Union County—Crawford & Sebastian's Giller 3, 14-16-15, SWc NW¼ NW¼. Gulf Ref. Co.'s Alphin 9, 2-16-15, NWc SW¼ NW¼; H. Murphy 1, 2-16-15, 200 ft N and E of SWc SE¼ NW¼; Werner 25, 6-16-16, 200 ft S and 2340 ft E of NWc of Section. Lion Oil & Ref. Co.'s Gulf 4, 17-16-15, old well to be deepened, 200 ft N and E of SWc NW¼ SE¼. Phillips Pet. Co.'s Herrin 1, 20-16-15, 330 ft S and E of NWc NW¼ SW¼. Standard Oil Co.'s Alphin 15, 11-15-16, 230 ft N and 10 ft W of Center of Section.

KANSAS

Butler County—Wents et al's No. 1 Stern, NEc SE 22-27-6; H. B. Garden, No. 2 Crawley, NEc SW NE 22-8-5. Ramsey et al No. 2 Myers, NEc SE SW SW 27-28-5.

Chase County — Phillips Pet. Co.'s No. 1 Irwin, NWc SW 1-22-8.

Chautauqua County—Texas Co.'s No. 1 Wiggins, SEc SW SE 33-32-10. J. A. Brauk et al's No. 1 Kinnaman, SEc 16-34-9. Page et al's No. 1 Tucker & Floyd, SWc SE SE 24-34-10.

Cowley County—Derby Oil Co.'s No. 1 Joslin, NEc SW SE 11-30-4. C. E. Roth et al's No. 4, Hanna, C N L NW NE 4-30-9. Hammell et al's No. 1 Girad, SEc NE NE 29-32-7.

Elk County—Clark Oil Co.'s No. 1 Love, NEc 35-30-9.

Greenwood County — Syndicate Oil Corp.'s No. 1 Kipfer, SWc SE NE 13-22-10. Ward McGinnis' No. 1 Kipfer, SEc SW NE 13-22-10; No. 2 Kipfer, SWc NE 13-22-10. Simmons & Burke's No. 1 Derbyshire, NEc SW SE 13-22-10; No. 2 Derbyshire, NWc SE 13-22-10. Skelly Oil Co.'s No. 1 Warrensburg, SEc NW 13-22-10. Youker et al's No. 1 Shambaugh, NWc NE 1-23-9. Phillips Pet. Co.'s No. 2 Tetter, NEc SW NW 15-23-9. Skelly Oil & Emerald Oil Co.'s No. 1 Teeter, NWc NE 15-23-9. McGinnis & Bittler, No. 2 Teeter, NWc SE NW 15-23-10. Skelly Oil Co.'s No. 4 Teeter, NEc SW NW 15-23-9. Skelly Oil & Co.'s No. 1 Ellis, SWc NE 26-23-11.

Lane County—Richards Ref. Co.'s No. 1 Dickenson, C S½ 17-18-27.

Montgomery County—Steinberg Bros.' No. 1 Brooks, SWc 24-33-13. Wilkins et al's No. 2 Zutz, C W L SE SW 12-33-16; No. 3 Thompson, C SW SW 12-33-16. Homer Lamb's No. 1 Thompson, SEc NW 12-33-16. Empire Gas & Fuel Co.'s No. 1 Good, NEc NW SE 12-33-16.

Sumner County—Marland Oil Co.'s No. 1 Lindsey, SEc NW 22-24-2, No. 1 Warner, NWc SW SE 23-34-2.

Wilson County—Gillock et al's No. 1 George, NWc SE SW 24-29-16. Franklin Oil Co.'s No. 1 Stevens, SEc NW 9-29-17.

OKLAHOMA

Carter County—Newstadt, W. & D., No. 1 Poland, C SW SW SW 27-1s-3w. Humble O. & R. Co.'s No. 3 Lusk, C SW SW NE 33-1s-3w. Magnolia Pet. Co.'s No. 1 Swartz, C SW NE NE 26-2s-3w. Schermerhorn Oil Co.'s No. 5 Palmer, C NE SW SW 33-2s-2w. Coline Oil Co.'s No. 1 Ledbetter, C SE SW SE 8-3s-2w.

Creek County—Steinberter & Smith's No. 1 Conrad, SWc SW SW 20-19-8. J. B. Chronic's No. 1, Williams, SEc SE NE 30-19-8, (old well deepened). Waite Phillips' No. 3, Grayson, SWc NE NE 23-17-8. Sartain Bros.' No. 1, Artussee, SEc SW NW 32-17-8, (old well deepened); No. 2 Artussee, SWc SW NW 32-17-8. (old well deepened). Glad Oil & G. & Shaffer's No. 1, Tucker, NE NE SW 17-19-9. S. J. Smith's No. 1, Fife, C E L W½ 3-17-11. Texas Co.'s No. 1, Milliken, C W L NW NW SW 8-16-12. Hendrick & Vick Oil Co.'s No. 1, Lot 1 and 2, Blk. 30, 8-16-12. A. B. Ice, No. 1, Lot 10, Blk. 20, 8-16-12. Hale & Grider's No. 1, SEc SW NE SW 8-16-12. Tibbons & Billingslea No. 3, Unallotted, SW NW SE 30-15-9. Peters Oil Co.'s No. 1, Abraham, NW NW SE 4-14-10.

Commanche County—Ka-Wye Drilling Co.'s No. 3, Hines, NWc NW SW 25-1n-9w.

Cotton County—Continental Oil Co., No. 2, Revelle, C SW SE SW 11-2n-11w.

Grady County—Sun Ray Oil et al's No. 2, Smith, NWc SE SW 26-5n-8w. Nash et al's No. 1, Pursley, C SW SW 26-4n-6w, (old well deepened).

Hughes County—T. B. Slick's No. 4, Alexander, C SW NE NW 2-9-9. Josey Oil Co.'s No. 1, A. Arbay, C NW SW NW 1-9-9. Slick's No. 4, Z. W. Bruner, C NE SE NW 2-9-9. Independent O. & G. Co.'s No. 4, Alexander, C SW NW NE 2-9-9; No. 5, Alexander, C NW SW NE 2-9-9. T. B. Slick's No. 2, Grayson, C NW SE NE 3-9-9. Tidal Osage Oil Co.'s No. 5, W. Baker, C NE SW SE 4-9-11. Snyder & Marshall's No. 1, L. M. Kile, C E L NE NW 8-16-10.

Lincoln County—Magnolia Pet. Co.'s No. 1 Swartz, SEc SE SW 34-15-5.

Okmulgee County—Eastern Oil Co.'s No. 8, Kemp, C W L SE SW 5-19-12. Broken Arrow Gas Co.'s No. 1 Perkins, SE SE NE 15-16-14.

Okfuskee County — Atlantic et al's No. 2 Brook, NE SE SW 36-12-10. Jennings et al's No. 1 D. Barnett, C NE SE SW 33-10-9. Carter Oil Co.'s No. 1 Polly Johnson, C NW SW SE 33-10-9, (old well deepened); No. 4 Polly Johnson, C SE NW SE 33-10-9; No. 5 Polly Johnson, C SE NW SE 33-10-9. T. B. Slick's No. 5 H. Sand, C NE SW SE 35-10-9. Slick's No. 2 A. Dunson, C SE SE NE 35-10-9. Cosden O. & G. Co.'s No. 4 Carborge, C SW NW SW 35-10-9.

Pawnee County—Bemens Oil Corp.'s No. 1 M. Box, SEc SW SE 30-23-5e. Slick's No. 1 Hill, SEc NW 1-21-5e. Noble O. & G. Co.'s No. 2 Rule, SEc SW SE 9-20-7. T. E. Mann's No. 3 Pettit, C N L NW NE 17-20-7.

Payne County—Shaffer O. & R. Co.'s No. 9 Laughlin, NWc NW NE 2-18-5, (old well deepened). Home O. & G. Co.'s No. 3, Laughlin, NEc SW NW 1-18-5.

Stephens County—Gant et al's No. 2 Symn, NWc SE NIW 2-2n-5w. Lone Star Oil Co.'s No. 5 Z. Brooks, NEc SE SW 19-1s-8w; No. 1 Bohanand, C SE NE NW 15-3s-5w. Magnolia Pet. Co.'s No. 1 Foe, SWc SW NW 28-1s-9w.

Tulsa County—Bruner Oil Co.'s No. 2 Partridge, C N L SE SW 5-19-12. Broken Arrow Gas Co.'s No. 1 Perkins, SE SE SE 36-12-12.

LOUISIANA

Bossier Parish—Arkansas Nat. Gas Co.'s Van Hoose A-4, 31-16n-11w, 660 ft S and 658 ft W of NE Cor. of NW¼. Atlantic Oil Prod. Co.'s Bodcaw Lbr. Co. 2, 24-23n-12w, 330 ft N and 330 ft W of SE Cor of NE¼ of SE¼.

Caddo Parish—Fortuna Oil Co.'s Bryson 1, 8-17n-16w, 330 ft W and 330 ft S of NE Cor. of S½ of SW¼. J. A. McClaran, Trustee, Agurs 1, 15-17n-16w, 2260 ft N and 425 ft E of SW Cor. State Line Oil & Gas Co.'s Mays 1, 17-17n-16w, 2150 ft N and 588 ft E of SW Cor. Waterman Drlg. & Dev. Co.'s Hunting Club 2, 17-17n-16w, 2006 ft W and 935 ft S of NE Cor; Hunting Club 1, 17-17n-16w, 2813 ft W and 1718 ft S of NE Cor.

Calcasieu Parish—Gulf Refining Co.'s Star Vincent 34, 34-10s-12w, 1195 ft E and 815 ft N of SW Cor. Sun Oil Co.'s Johnson 3, 3-11s-12w, 660 ft E and 660 ft S of NW Cor. Union Sulphur Co.'s U. S. Co. 713, 29-9s-10w, 1213 ft E and 1416 ft N of Center.

Ouachita Parish — W. C. Feazel, Trustee's

Weekly Comparison of New Wells

Following is a condensed table giving a comparison of permits or locations made for new wells in Kansas, Oklahoma, Arkansas, Louisiana, Texas and California.

	Number of Wells for Week Ending															
	Aug. 15	Aug. 22	Aug. 29	Sept. 5	Sept. 12	Sept. 19	Sept. 26	Oct. 3	Oct. 10	Oct. 17	Oct. 24	Nov. 1	Nov. 8	Nov. 15	Nov. 22	Nov. 29
Kansas	12	16	10	19	6	14	23	21	25	16	12	30	38	23	36	33
Oklahoma	53	80	68	51	73	63	60	66	43	32	47	53	77	61	56	53
Arkansas	8	11	2	19	13	13	12	7	7	16	14	12	9	17	16	16
Louisiana	4	8	7	9	9	12	14	5	10	9	5	19	11	10	11	23
Texas	75	89	82	85	130	78	110	96	86	107	129	103	111	150	111	156
California	22	25	16	18	..	14	19	21	18	22	17	20	23	17	16	14
Total	174	229	185	201	231	194	238	216	189	202	224	237	269	278	246	295

Richland 1, 14-19n-4e, 1980 ft S and 660 ft W of NE Cor.

Sabine Parish—L. M. Emlet's Bowman-Hicks 5, 9-7n-12w, 184 ft N and 893 ft E of SW Cor. of NE¼ of SE¼.

Webster Parish—Alabama Pet. Co.'s Pardee Lbr. Co. A-3, 24-21n-10w, 330 ft S and 330 ft W of NE Cor. of SE¼ of NE¼. Fortuna Oil Co.'s Creighton 1, 19-21n-9w, 330 ft S and 330 ft E of NW Cor. of SE¼; Nickerson 1, 33-23n-10w, 660 ft S and 660 ft E of NW Cor. Humble Oil & Ref. Co.'s Davis 3, 13-21n-10w, 330 ft N and 990 ft W of SE Cor.; Davis 4, 13-21n-10w, 990 ft N and 990 ft W of SE Cor.; Bodcaw Lbr. Co. B-9, 28-21n-10w, 330 ft S and 330 ft W of NE Cor of SE¼; Bodcaw Lbr. Co. B-8, 13-21n-10w, 330 ft N and 990 ft W of SE Cor. of NE¼ of SE¼. J. A. Kennedy's Ambrose 1, 19-20n-10w, 300 ft S and 300 ft E of NW Cor. of SW¼ of NE¼.

TEXAS

Archer County—A. P. Nicholson's H. O. Prideaux No. 1, J. Dorsey sur, NE cor. R. R. Robertson's J. H. White No. 5, blk 35, Amer. Trib. sur, 300 ft S No. 4; J. H. White No. 21, blk 35, Amer. Trib. sur, 300 ft W No. 11; J. H. White No. 7, blk 35, Amer. Trib. sur, 150 ft to S and E lines; J. H. White No. 16, blk 35, Amer. Trib. sur, 300 ft E No. 11; J. H. White No. 15, blk 35, Amer. Trib. sur, 150 ft to S and W lines. Mutual Oil Co.'s Harmel No. 2, 2401 TE&L sur, 465 ft to N and 150 ft to W line; Harmel No. 3, 2401 TE&L sur, 462 ft to W and 150 ft to N line. Mahlsteadt Mook Oil Co.'s Hutchinson No. 1, sec 123, Amer. Trib. sur, 150 ft to W and 555 ft to S line. Young Bros. & Kennedy's Ickert No. 1, sec 16, Crawford sur, 150 ft to S and W lines. W. E. Forgy's E. V. Pearston No. 1, blk 123, J. W. Harris sur, 150 ft to N and W lines. Oil Inv. Co.'s Fee No. 2, Jno. Richards sur, 300 ft SE No. 1. Davis Farm Oil Co.'s C. L. Davis No. 5, D. White sur, 330 ft N No. 1. Gulf Prod. Co.'s P. Siegel No. 5, sec 22, Amer. Trib. sur, 365 ft E No. 1; Oil Inv. Co. No. 3, sec 125, J. W. Harris sur, 150 ft to S and W lines; Oil Inv. Co. No. 4, sec 125, J. W. Harris sur, 300 ft N No. 3. Jesse Lincoln's Young & Langford No. 1, blk 127, J. W. Harris sur, 1722 ft to E and 150 ft to N. line; Oil Inv. Co. No. 2, blk 125, J. W. Harris sur, 150 ft to N and E lines. Ramming & Saunders' L. F. Wilson No. 5, blk 23, Amer. Trib. sur, 520 ft to W and 500 ft to S line. Wirt Franklin's W. F. Parrish No. 1, sec 26, H&TC Ry. sur, 150 ft to S and E lines. Petroleum Prod. Co.'s M. E. Rogers No. 5, 1600 TE&L sur, 300 ft S No. 3; M. E. Rogers No. 6, 1600 TE&L sur, 300 ft S No. 4. Murchison & Fain's T. L. Griffin No. 1, 2400 TE&L sur, 150 ft to S and E lines. Murchison, Fain and Golding's J. A. Wood A-2, 2406 TE&L sur, 313 ft E No. 3; J. A. Wood A-3, 2406 TE&L sur, 463 ft to W and 150 ft to N line; H. Harmel C-2, 2401 TE&L sur, 313 ft N No. 3; H. Harmel C-3, 2401 TE&L sur, 776 ft to N and 150 ft to W line; T. L. Griffin No. 3, 2400 TE&L sur, 300 ft W No. 2; T. L. Griffin No. 4, 2400 TE&L sur, 300 ft W No. 3. Maer & Staniforth's F. W. Pollei No. 4, blk 7, Thos. McCoy sur, 300 ft N No. 2; F. W. Pollei No. 5, blk 7, Thos. McCoy sur, 300 ft N No. 3. Panhandle Ref. Co.'s C. L. Davis No. 6, J. Hopkins sur, 300 ft N No. 5; A. Beardon No. 1, J. Poitevebt sur, 750 ft to E and 450 ft to S line. Texas Co.'s B. R. Jeske No. 2, blk 6, Thos. McCoy sur, 450 ft to E and 150 ft to S line. Bridwell & Mayfield's D. C. Giddings No. 1, 275 A. C. McMillan sur, 1881 ft to N and 2314 ft to E line. A. P. Nicholson's H. O. Prideaux No. 2, J. Dorsey sur, SW cor. Saratoga Oil Co.'s L. F. Wilson No. 6, sec 27, Amer. Trib. sur, 300 ft S No. 3. Texas Co.'s B. R. Jeske No. 3, blk 6, Thos. McCoy sur, 150 ft to E and 450 ft to S line. F. H. Gohlke's L. F. Wilson No. 1, blk 11, W. Geraldine sur, 200 ft to N and 290 ft to E line. Texhoma Oil & Ref. Co.'s L. F. Wilson 1-F, blk 120, Amer. Trib. sur, 150 ft to N and E lines. Simms Oil Co.'s W. F. Parrish No. 4, sec 26, H&TC Ry. sur, 340 ft W No. 3. Burns & Maxon's F. W. Kunkel No. 1, L. M. Meade sur, 150 ft to N and W lines.

Brown County—F. W. Stone & Co.'s A. G. Gunn No. 2, 155 W. B. Smith sur, 1014 ft to E and 209 ft to N line.

Bexar County—J. M. Davis' T. Koch No. 1, M. F. Rodriguez sur, 300 ft to N and E lines. Southern Natural Gas Co.'s T. G. Oliver No. 12, sur 4, 833 ft SE No. 3. Gas Ridge Dev. Co.'s A. Cohen Estate No. 6, M. F. Rodriguez sur, 900 ft E No. 5.

Brewster County—Green Valley Oil Corp.'s W. A. Wilson No. 1, sec 8, TE&L sur, 1665 ft to S and 1274 ft to E line.

Callahan County—Godley Oil & Gas Co.'s M. Kennedy No. 2, sec 8, Bayland sur, 200 ft to N and 150 ft to E line. Multi-Chance Dev. Co.'s H. Wagley No. 3, sec 2, D&D Asy. sur, 450 ft to W and 150 ft to S line. Moutray Oil Co.'s W. M. Isenhour No. 1, sec 7, Bayland Asy sur, 825 ft to W and 150 ft to N line. Sprawls, Harwell & Cook's H. Wagley No. 8, sec 2, D&D Asy sur, 600 ft S No. 6; H. Wagley No. 9, sec 2, D&D Asy sur, 300 ft S No. 7. W. R. Andrews et al's Mrs. R. D. Williams No. 18, 2973 TE&L sur, 300 ft E No. 16. W. J. Armstrong et al's M. Kennedy No. 1, sec 11, Bayland Asy sur, 500 ft to N and 400 ft to W line. Sirmans Oil Co.'s S. W. Jobe No. 2, sec 4, Bayland Asy sur, 450 ft to W and 150 ft to S line. M. D. Heist's Mrs. R. D. Williams No. 2, 2269 TE&L sur, 300 ft N No. 1. Big 5 Oil Co.'s Shackleford No. 3, 2270 TE&L sur, 300 ft W No. 2.

Chambers County—S. J. Hindman's G. W. Collier No. 1, H. Griffith sur, 2891 ft to W and 60 ft to S line.

Caldwell County—Rio Bravo Oil Co.'s Merriweather No. L-8, John Henry sur, 300 ft NW No. 4.

Clay County—Lone Star Gas Co.'s Stine No. 16, blk 2, P. C. S. L. sur, 1150 ft to N and 1200 ft to E line; Byers No. 46, blk 2, Byers sur, 150 ft to S and W lines.

Duval County—Humble Oil & Ref. Co.'s No. 7, sec 82, GH&G Ry. sur, 25 ft N and 30 ft E of No. 6.

Eastland County—Dickey Oil Co.'s Shackel-

POWELL VALVES

INSURE

Safety Always!

The real test of a valve is how it performs in an emergency such as the blowing out of a boiler tube or an unexpected movement of steam in either direction.
The protection you need in such emergencies can best be secured by the use of

Powell Triple-Acting Non-Return Valves

These automatic check valves are rendering reliable watch dog service in hundreds of boiler rooms.

Consider these safety features:

When a tube is blown out the valve closes, isolating the boiler in trouble.
Valve closes instantly in case of accident by an unusual or sudden flow of steam in either direction.
Valve closes by gravity when boilers are cooled down, and will not re-open until pressures are created and equalized.
Extra heavy construction—selected materials.

Write for descriptive literature

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Spring Grove Ave., Cincinnati, Ohio

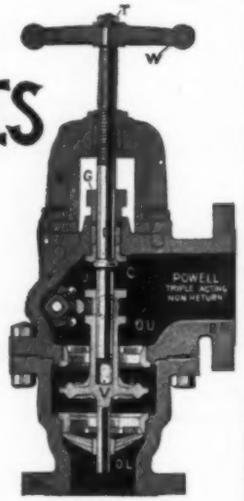

Fig. 2228

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Medium and Extra Heavy for Steam. Working Pressure up to 200 and 300 pounds

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Distinguishing features of the Frost Vertical Oil Field Generator are:

—Vertical construction
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ford No. 3, TE&L sur, 300 ft W No. 2. W. H. Lota's Yaeger No. 1, 3176 TE&L usr, 450 ft to N and 568 ft to W line. States Oil Corp.'s I. C. Harrell No. 14, B. H. Epperson sur, no lcn; W. F. Davenport No. 3, sec 7, H&TC Ry. sur, no lcn. Shackelford Oil Co.'s J. A. Shackelford No. 10, 2270 TE&L sur, 300 ft W No. 4.

Fort Bend County—P. A. Neilan Inc.'s B. Frederick No. 1, S. George sur, sec 19, 4½ miles W of Rosenberg. Gulf Prod. Co.'s T. W. Davis No. 17, M. Young sur, 200 ft SW No. 16; J. M. Moore No. 2, S. Burknap sur, 762 Vs. to S and 325 Vs. to W line.

Freestone County—Atlantic Oil Prod. Co.'s A. H. Edwards No. 1, R. B. Longbotham sur, 150 ft to W and 202 ft to S line. Mrs. J. K. Hughes' T. L. Simmons No. 11, R. B. Longbotham sur, 150 ft to N and W lines. Carter & Lytle's Mrs. L. Manning No. 3, S. McNaulty sur, 300 ft E No. 1. E. L. Smith Oil Co. Inc.'s H. A. Beall No. 1, R. B. Longbotham sur, 150 ft to S and E lines Boyd Oil Co.'s R. Simmons No. 1, R. B. Longbotham sur, 630 ft to W and 150 ft to S line. R. R. Penn's L. H. McCorkle No. 1, Wm. Ritchie sur, 150 ft to N and W lines.

Falls County—Chas. W. Harrison's J. M. Preston No. 1, H. Anderson sur, 150 ft to N and W lines.

Galveston County—Yount-Lee Oil Co.'s A. Guidry No. 4, M. Dunman sur, 160 ft to W and 1110 ft to S line.

Harris County—Gulf Production Co.'s E. R. Taylor No. 9, James Hamilton sur, 1804 ft to N and 50 ft to E line; Stateland No. 17, Wm. Scott sur, 1059 ft W of SE cor; A. Smith No. 15, Wm. Scott sur, 398 ft to N and 176 ft to W line. Bayshore Prod. Co.'s W. Guinn No. 3, Lot 24, La Porte sur, 50 ft N No. 2. Kane Exploration Co.'s T. J. Rock No. 1, F. Rankin sur, west central. O. W. Cobb's Rosenthal No. 2, James Strange sur, no lcn.

Hardin County—Acorn Oil Co.'s Paraffine No. 49, S. H. Green sur, 106 ft to W and 174 ft to S line. Minor Oil Co.'s Fee No. 74, S. Jackson sur, 150 ft SW No. 29. Gilbert Co.'s fee No. 93, S. Jackson sur, 50 ft S No. 49; Fee No. 95, S. Jackson sur, 150 ft N No. 49. Acorn Oil Co.'s Paraffine No. 48, Green sur, 150 ft to N and 360 ft to W line. Paraffine Oil Co.'s Fee No. 56, W. Donaho sur, 763 ft to W and 273 ft to N line.

Harrison County—A. R. Carmody's J. W. Furrh No. 1, James Short sur, 200 ft to S and W line. V. E. Howze's J. S. Bryson No. B-1, J. Lipscomb sur, 551 ft to N and 405 ft to E line. State Line Oil & Gas Co. Inc.'s W. B. Taylor No. 1, T. D. Wilson sur, no lcn. A. C. Scott's V. M. O'Banion No. 1, J. J. Blair sur, 1500 ft to N and 225 ft to W line. J. L. Ferguson's C. M. Abney No. 1, R. W. Bedford sur, 375 ft to N and 1125 ft to E line.

Jim Wells County—Simms Oil Co.'s W. Brumme No. 1, J. J. Montgomery sur, 2001 ft to N and 200 ft to E line.

Jim Hogg County—Witherspoon Oil Co.'s R. Holbein No. 1, sec 26, Las Animas sur, 150 ft to S and W lines.

Kennedy County—Humble Oil & Ref. Co.'s King No. 21-A, 60,962 ft E of intersection of St. LB&M Ry & S line of Kennedy County; King No. 22-A, 52,504 ft E of intersection; King No. 20-A, 69,420 ft E of intersection.

Liberty County—Republic Prod. Co.'s Dolbear No. 95, J. Devore sur, 528 ft to N and 3502 ft to E line; Dolbear No. 96, J. Devore sur, 1638 ft to N and 1362 ft to E line. Gulf Prod. Co.'s M. Phillips No. 8, C. Underton sur, 150 ft to E and 100 ft to S line.

Limestone County—F. Burton's W. R. Evans No. 1, P. Varella sur, 150 ft to E and 800 ft to S line.

Morris County—Humble Oil & Ref. Co.'s Brown No. 7-A, BBB&C Ry. sur, 475 ft N and 900 ft W of center of sec 426.

Montague County—Owen A. Wood's M. H. Salmon No. 1, W. P. Zuber sur, 150 ft to N and W lines.

Milam County—Fogle Oil Co.'s G. C. Lucas No. 2 Burchard sur, 300 ft S No. 1. Minerva Pet. Co.'s A. B. Watson No. 4, T. J. Chambers sur, 310 ft SW No. 3.

Navarro County—Tidal Oil Co.'s R. L. Wheelock No. 9, J. D. Matthews sur, 150 ft to E and 300 ft to S line. Atlantic Oil Prod. Co.'s B. F. Irvine No. 18, J. Taylor sur, 155 ft S No. 5. Pure Oil Co.'s R. Kent No. 9, Hrw. J. Smith sur, 415 ft NE No. 3.

Orange County—Humble Oil & Ref. Co.'s Chesson B-21, Wm. Dyson sur, 540 ft to E and 50 ft to S line. Gulf Prod. Co.'s O. Chesson No. 4, Wm. Dyson sur, 35 ft to W and 36 ft to N line.

Potter County—Amarillo Oil Co.'s Lee Bivins A-3, sec 30, Gunter & Munson sur, 1320 ft to NW cor of sec.

Panola County—John Glasswell Jr.'s T. Douglas Hrs. No. 1, W. H. Lacey sur, 300 ft to N and W lines. Atlantic Oil Prod. Co.'s Mrs. L. Cadanhead No 1, W R Booker sur, 340 ft to N and 300 ft to E line

Reagan County—J. K Hughes' University No. 1, sec 5, University Lands sur, 150 ft to S and W section lines.

Shackelford County—A. J. Hughes et al's D. Diller No. 1, sec 562, 150 ft to S and E lines.

Wichita County—W. H. Hammon et al's S. H. McCarty No. 4, W. R. Eeaves sur, 300 ft N No. 3. Rubsam & Hunter's W. D. McClure No. 5, GC&SF Ry. sur, 300 ft S No. 1. Shappell Oil Co.'s S. H. McCarty No. 1, W. R. Eaves sur, 150 ft to N and W lines. Morrison & Coleman's R. E. Moore No. 4, W. H. Anderson sur, 405 ft to N and 190 ft to W line. F. Heine's F. P. Warren No. 5, L. B. Talliaferro sur, 245 ft to E and 1284 ft to S line. J. H. Howell's T. L. Burnett No. 2, sec 9, H&TC Ry. sur, 450 ft to W and 150 ft to N line. Grayce Oil Co.'s S. M. Daniel No. 11, H. Hastie sur, 300 ft E No. 10. Perkins & Cullum's S. B. Burnett No. 11, sec 5, SA&MG Ry. sur, 450 ft to S and 150 ft to W line.

(Continued on page 74)

PIONEER
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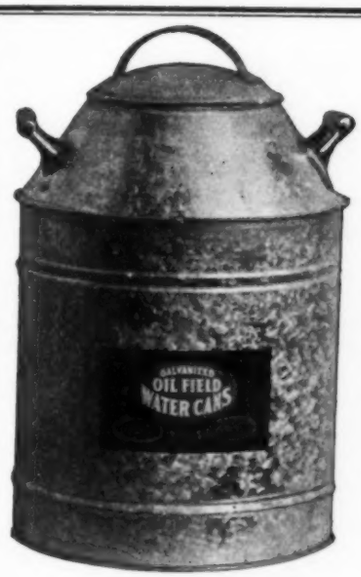

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Made in 1½, 3, 5, and 10 gallon sizes.

Special size cans or coolers made to order.

H. P. GOTT Manufacturing Co.
WINFIELD, KANSAS

Summary of Field Operations for November

Eastern States

OHIO

County—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Allen	4	3	1	..	55
Ashland	3	..	2	1	....
Athens	12	4	5	3	40
Auglaize	4	4	..	..	70
Columbiana	5	5	..	..	8
Coshocton	2	1	1	..	20
Fairfield	3	1	2	..	65
Guernsey	2	..	2	..	....
Hancock	3	2	1	..	19
Hardin	4	2	1	1	30
Hocking	8	2	2	4	23
Holmes	10	3	6	1	140
Jackson	2	..	1	1	....
Knox	5	4	..	1	13
Licking	23	21	1	1	273
Medina	4	..	4	..	....
Meigs	4	2	2	..	15
Mercer	10	8	..	2	117
Monroe	5	3	1	1	8
Morgan	4	4	..	..	112
Muskingum	4	3	..	1	43
Noble	6	3	..	3	6
Ottawa	5	5	..	..	60
Paulding	5	4	1	..	32
Perry	6	6	..	..	73
Sandusky	1	1	..	..	2
Richland	1	..	1	..	....
Shelby	1	1	..	..	35
Van Wert	2	2	..	..	25
Washington	12	5	7	..	18
Wayne	15	4	7	4	105
Wood	9	9	..	..	104
Miscellaneous	6	4	2	..	16
Totals	190	116	50	24	1,527

WEST VIRGINIA

Boone	3	1	1	1	180
Braxton	3	..	2	1	....
Brooke	1	..	..	1	....
Cabell	2	..	2	..	....
Calhoun	4	3	1	..	8
Doddridge	10	2	7	1	14
Gilmer	13	1	9	3	1
Harrison	11	2	9	..	30
Kanawha	4	..	4	..	....
Lewis	1	..	1	..	....
Lincoln	5	..	5	..	....
Marion	3	1	2	..	25
Marshall	6	2	4	..	15
Monongalia	2	1	1	..	5
Pleasants	12	9	..	3	51
Putnam	1	..	1	..	....
Ritchie	26	12	11	3	77
Roane	12	1	10	1	7
Tyler	4	2	2	..	10
Wetzel	5	2	3	..	25
Wirt	1	1	..	..	4
Wood	10	5	2	3	67
Totals	139	45	77	17	519

KENTUCKY

Adair	2	..	..	2	...
Allen	14	8	..	6	51
Barren	20	13	2	5	81
Cumberland	10	3	..	7	233
Elliott	1	1	..	..	15
Estill	1	1	..	..	2
Floyd	3	..	3	..	...
Green	1	..	..	1	...
Johnson-Magoffin	12	12	..	..	121
Lawrence-Johnson	17	17	..	..	679
Laurel	1	..	..	1	...
Lee	8	8	..	..	173
Martin	2	..	2	..	...
Metcalf	1	..	..	1	...
Owensboro	7	5	..	2	30
Owsley	1	1	..	..	4
Powell	1	1	..	..	10
Russell	4	3	..	1	29
Simpson	2	1	..	1	6
Warren	10	9	..	1	2,266
Wayne	5	2	..	3	8
Wolfe	2	1	..	1	100
Totals	125	86	7	32	3,808

PENNSYLVANIA

County—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Allegheny	4	1	3	..	3
Bolivar	1	1	..	..	10
Bradford field	94	89	..	5	332
Butler	15	7	5	3	39
Center-Middle	6	4	..	2	21
Clarion	7	3	2	2	7
Forestville field	1	1	..	..	25
Greene County	13	1	10	2	25
Venango	18	16	1	1	41
Washington	2	1	1	..	400
Westmoreland	1	..	..	1	....
Totals	162	124	22	16	903

EASTERN STATES

Ohio	190	116	50	24	1,527
W. Virginia	139	45	77	17	519
Pennsylvania	162	124	22	16	903
Kentucky	125	86	7	32	3,808
Illinois	20	10	1	9	275
Indiana	9	8	..	1	285
New York	9	9	..	..	32
Totals	654	398	157	99	7,349

ILLINOIS

Clark	8	6	..	2	192
Crawford	1	1	..	..	5
Lawrence	1	1	..	..	43
Madison	1	..	..	1	....
Wabash	9	2	1	6	35
Totals	20	10	1	9	275

INDIANA

Adamas	1	1	..	..	3
Delaware	1	1	..	..	75
Jay	5	4	..	1	157
Pike	2	2	..	..	50
Totals	9	8	..	1	285

NEW YORK

Allegany	8	8	..	..	22
Bolivar	1	1	..	..	10
Totals	9	9	..	..	32

California

Coalinga	1	1	..	..	60
Coyote Hills	..	..	..	..	....
Dominguez	3	3	..	..	4,650
Elk Hills	2	2	..	..	2,150
Fresno County	..	..	..	..	....
Fullerton	..	..	..	..	....
Hovey Hills	2	2	..	..	300
Huntington Bch.	3	3	..	..	2,850
Inglewood	..	..	..	..	....
La Habra	1	1	..	..	250
Long Beach	12	12	..	..	3,165
McKittrick	..	..	..	..	....
Midway	3	3	..	..	2,600
Montebello	..	..	..	..	....
Richfield	1	1	..	..	300
Rosecrans	4	4	..	..	2,480
Santa Fe Springs	2	1	1	..	100
Sunset	1	1	..	..	75
Torrance	28	28	..	..	3,100
Totals	63	62	1	..	22,080

Kansas

Butler	2	..	..	2	....
Chautauqua	3	1	..	2	40
Chase	1	..	..	1	....
Cowley	4	3	..	1	3,285
Finney	1	..	..	1	....
Elk	6	2	1	3	95
Greenwood	9	3	..	6	250
Lyon	1	..	..	1	....
Montgomery	1	..	..	1	....
Osborne	1	..	..	1	....
Reno	2	..	..	2	....
Rice	1	..	..	1	....
Russell	1	..	..	1	....
Shawnee	1	..	..	1	....
Sumner	2	..	..	2	....
Woodson	2	..	..	2	....
Totals	38	9	1	28	3,670

KANSAS SUMMARY OF MONTHLY PRODUCTION BY FIELDS

Fields—	Barrels
Greenwood	627,480
Eldorado	507,510
Rainbow Bend	256,350
Elbing and Peabody	242,310
Fox-Bush	111,240
Augusta and Douglas	92,820
Blankenship	72,260
Florence and Covert	71,820
Other fields	558,900
Totals	2,540,690

Oklahoma

County—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Burbank field	22	21	..	1	14,925
Carter	16	11	1	4	1,581
Canadian	1	..	..	1	....
Commanche	1	..	1	..	....
Cotton	2	..	1	1	....
Creek	33	17	3	13	2,900
Custer	1	..	..	1	....
Grant	3	..	..	3	....
Grady	2	..	2	..	....
Hughes	9	7	..	2	8,255
Jefferson	2	1	..	1	250
Kay	8	4	1	3	4,862
Kingfisher	1	..	..	1	....
Lincoln	3	2	..	1	100
Logan	2	..	..	2	....
McIntosh	1	..	..	1	....
Muskogee	3	1	..	2	1,100
Noble	3	1	1	1	10
Okfuskee	6	4	..	2	3,690
Okmulgee	13	5	4	4	583
Osage	19	8	4	7	747
Pawnee	16	13	..	3	4,438
Payne	1	..	..	1	....
Pontotoc	2	..	..	2	....
Pottawatomie	1	..	..	1	....
Seminole	69	62	4	3	52,503
Stephens	2	..	..	2	....
Tulsa	27	11	4	12	550
Wagoner	5	..	1	4	....
Totals	254	168	17	69	95,694

OKLAHOMA SUMMARY OF MONTHLY PRODUCTION BY FIELDS

Fields—	Barrels
Tonkawa	2,958 960
Burbank	2,139,120
Bristow	1,605,570
Cromwell	1,354,500
Osage (outside of Burbank)	1,238,520
Okmu'gee	772,590
Cushing	727,890
Gilcrease-Papoose	603,000
Hewitt	564,480
Healdton	382,200
Wewoka	355,080
Duncan and Walters	199,830
Stroud	143 250
Other fields	2,364,690
Totals	15,409,480

LOUISIANA

Field—	Completions	Producers	Gas Wells	Failures	Init. Prod.	Monthly Prod.
Anse La Bute	..	..	..	..	....	660
Bellevue	1	..	..	1	....	115,800
Bull Bayou	..	..	..	..	....	141,750
Caddo	3	1	2	..	50	354,840
Cotton Valley	6	4	2	..	13,915	351,240
Edgerly	1	1	..	..	100	15,330
Elm Grove	2	..	2	..	....	20,340
Evangeline	1	1	..	..	....	26,280
Haynesville	..	..	..	..	....	498,690
Homer	..	..	..	..	....	211,560
Lake Charles	..	..	..	..	....	38,010
Monroe	5	..	5	..	....	.....
Sarepta	1	..	1	..	....	.....
Vinton	..	..	..	..	....	178,500
Wildcats	12	3	2	7	2,274	.....
Totals	32	10	14	8	16,339	1,953,000

Arkansas

Field—	Completions	Producers	Gas Wells	Failures	Init. Prod.	Monthly Prod.
El Dorado	..	..	..	..	....	327,990
Irma	....	..	..	..	....	41,700
Smackover	35	29	1	5	2,145	3,209,490
Stephens District	2	2	..	..	47	62,550
Wildcats	6	..	..	6	....	.....
Totals	43	31	1	11	2,192	3,641,730

Wyoming

County—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Salt Creek Field	9	9	..	..	1,434
Miscellaneous	2	1	..	1	275
Totals	11	10	..	1	1,709

Utah

Utah	.....	1	..	..	1	....

Texas

Field—	Completions	Producers	Gas Wells	Failures	Init. Prod.	Monthly Prod.
N. Texas	196	121	..	75	28,263	2,530,310
Cent. and W. Texas	67	35	..	32	10,015	4,853,365
E. Texas	19	..	15	4	....	.....
Gulf Coast	52	37	..	15	13,349	2,138,150
Texas Misc.	6	6	..	..	2,475	1,434,450
Totals	340	199	15	126	54,102	10,956,275

GULF COAST

Field—	Completions	Producers	Gas Wells	Failures	Init. Prod.	Monthly Prod.
Barbers Hill	..	..	..	..	....	4,350
Batson	3	2	..	1	30	48,900
Blue Ridge	1	1	..	..	250	23,610
Damon Mound	2	2	..	..	100	38,190
Dayton	..	..	..	..	....	1,710
Goose Creek	8	6	..	2	327	321,000
High Island	..	..	..	..	....	1,830
Hockley	..	..	..	..	....	510
Hull	11	7	..	4	4,850	474,000
Humble	..	..	..	..	....	150,540
Markham	..	..	..	..	....	3,390
Nacogdoches	..	..	..	..	....	3,300
Orange	10	6	..	4	6,475	374,040
Pierce Junction	1	1	..	..	500	13,650
Richmond	2	2	..	..	100	132,930
Saratoga	4	4	..	..	127	35,960
Spindle Top	5	3	..	2	475	38,430
Sour Lake	3	1	..	2	15	124,680
W. Columbia	2	2	..	..	100	381,060
Wildcats	..	..	..	..	....	.....
Totals	52	37	..	15	13,349	2,138,150

NORTH TEXAS

Field—	Completions	Producers	Failures	Init. Prod.	Monthly Prod.
Archer County	130	87	43	21,015	1,027,010
Electra	21	11	10	693	578,100
Burkburnett	3	1	2	10	509,850
Young County	14	6	8	285	118,725
So. Vernon—Wilbarger County	3	3	..	5,200	111,410
K-M-A	6	4	2	210	90,450
Panhandle Dist.	3	3	..	675*	42,075
Iowa Park	8	3	5	35	41,290
Petrolia-Clay Co.	2	..	2	..	10,500
Jack County	..	..	..	..	900
Wilcats	6	3	3	140	....
Totals	196	121	75	28,263	2,530,310

*Includes 100,000,000 cu. ft. gas.

EAST TEXAS

Waskom Gas Field	8	..	8	..	....
Panola Gas Field	11	..	7	4	....
Totals	19	..	15	4	....

TEXAS MISCELLANEOUS

Luling	3	3	..	..	2,100	1,067,250
Mirando	3	3	..	..	375	213,750
Somerset	..	..	..	..	....	117,000
Rockdale-Minerva	..	..	..	..	....	36,450
Totals	6	6	..	..	2,475	1,434,450

CENTRAL AND WEST TEXAS

Field—	Completions	Producers	Failures	Init. Prod.	Monthly Prod.
Corsicana-Powell	7	4	3	190	2,097,785
Mexia-Currie District	3	1	2	1,500	799,835
Richland	10	9	1	2,345*	633,000
Stephens County	13	7	6	530†	518,290
Reagan County	2	2	..	5,000	214,725
Ranger-Eastland	4	3	1	245	191,550
Desdemona-Gorman	2	2	..	80	167,175
Ibex-Shackelford County	1	..	1	....	89,965
Mitchell County	..	..	..	....	47,810
Callahan County	5	3	2	90	43,800
Strawn-Palo Pinto County	2	1	1	....‡	22,725
Brown County	4	2	2	35	21,710
Thrall-Williamson County	..	..	..	....	2,440
Coleman County	..	..	..	....	1,840
Scurry County	..	..	..	....	715
Wildcats	14	1	13	....§	....
Totals	67	35	32	10,015	4,853,365

*Includes 13,000,000 cu. ft. gas.
†Includes 18,000,000 cu. ft. gas.
‡Includes 2,000,000 cu. ft. gas.
§Includes 21,000,000 cu. ft. gas.

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WILDCATS FROM ALL SECTIONS

Discovery May Mean New Production Area in Panhandle Section of Texas

Amarillo, Texas, Dec. 1.—The discovery of high gravity oil production 10 miles south and east of the Carson-Hutchinson County field in the Panhandle district by Culbertson Brothers and Company on the V. B. Armstrong land, gives promise of a new field. This wildcat began showing oil at 3085 feet, and filled up several hundred feet with oil after drilling sandy-lime pay at 3160-65 feet. It is located in the southeast quarter of section 30, T. T. Ry. survey, block 2, Carson County, and logged the top of the lime at 2482 feet, with a surface elevation of 3390 feet. Oil bailed from the well is reported to test above 40 gravity, and does not congeal at freezing temperature as is the case with oil produced in the Carson-Hutchinson field. Preparations are being made to drill deeper and test the pay next week.

Indications that the oil producing area on the Burnett ranch in Carson County may be partially defined on the north were developed during the past week when Danciger Oil and Refining Company's Burnett 1, located in southeast quarter of section 129, block 5, and less than one mile northeast of The Texas Company's big well, missed the regular pay after drilling to 3070 feet. This well was drilled with rotary by Hal Hughes, drilling contractor of California and Texas, on a 160 acre lease carrying a one-quarter over riding royalty for the fee owner, and is contracted for a depth of 3500 feet. A string of 8¼ casing was set and cemented at 2929 feet, and with the hole in good shape it is believed that this will be made a deep test, which will be the first on the Burnett ranch. Gulf's Burnett Estate 1, located in northeast corner section 91 and on the sontheast edge of the field, has failed to encounter oil after drilling to 3115 feet, although it encountered heavy gas in the regular lime, and probably delimits the oil field to the southeast.

Danciger Oil and Refining Company have made location for a deep test on the J. B. Bowers land, Gray County, and are building rotary derrick 660 feet each way from northeast corner of the southeast quarter of section 85, I. & G. N. survey, block 3. The heavy rotary equipment used on this company's Carson County test is to be put to work on this wildcat when the other test is completed. Wilcox Oil and Gas Company is moving in a standard rig from Oklahoma to drill deeper and complete its oil producer on the P. A. Worley and Reynolds ranch, section 62, block 3, Gray County, with a total depth of 2930 feet. This well continues to flow by heads occasionally, and is the first oil producer completed to date in Gray County.

The Amarillo Oil Company's wildcat test on the J. C. Warrick land, section 16, block Y-2, Potter County, caught fire from the boiler while making gas at 2360 feet, and destroyed the rig. The well was still burning late last week, according to reports from the field. The same company's W. H. Bush 1, section 23, B. S. & F. survey, block 6, has reached a depth of 3110 feet without showing for a producer.

Central West Texas Wildcats

Company, Well and Location	Initial Production Bbls.	Depth
COMPLETIONS		
Brown County—		
Gully & Griffin Cox 1	20	2436
C. O. Moore et al Teston 1, dd	45	1245
Stone & Co. Gunn 1	10	1220
Callahan County—		
Blair et al Cathey 5	*	1785
L. D. Prewitt et al White 1	*	2240
Windham 1	¶3	1435
Ward County —		
Trans-Pecos Oil Co. Longnecker 1	*	1755

DRILLING REPORT

BROWN COUNTY—M. T. Anderson-Moore et al's Wheeler 1, sd 2790 ft. Canyon Oil & Gas Co.'s Ellsberry 1, spudding. Gillman et al's Newton 6, rig. Honea et al's E. DeBusk 2, sd 2300 ft. Moore & Wilson's Williams 1, sd 1225 ft. McMurray et al's Newton 2, machine. New Era Oil Co.'s Prather 3, dr 600 ft. Omaha Southern Oil Co.'s G. B. Gaines 2, sd 1840 ft. Stone & Co.'s Gunn 2, dr 650 ft. T. B. Slick et al's Chambers 1, dr 1910 ft. Thomas et al's Bohara 1, sd repairs 2410 ft. Ward Oil Co.'s Windham 1, dr 515 ft. Williams et al's H. A. Newton 1, spd and sd.

CALLAHAN COUNTY—Blair et al's Cathey 5, abn 1785 ft. Byron-Union Oil Co.'s Hennessey 1, dd, sd 4405 ft. Chas. Dutton et al's Cathey 5 and 7, rigs; Harwell 1, sd 800 ft. Hickey et al's E. L. Findley 2-A, rig. Junior Oil Co.'s A. L. Huntington 1, sd 2280 ft. Kellogg Drilling Co.'s Snyder 1, dr 2515 ft. McMath et al's Isenhower 1, spd and sd. O'Donnell et al's Cathey 1, rig. Pope-Wilson & Pennent Oil & Gas Co.'s W. B. Bryson 4, dr by tools 2055 ft. L. D. Prewitt et al's W. W. Crane 1, sd 1560 ft; Geo. T. Crane 1, caving 1525 ft; Crane 2, sd 810 ft. Seaboard Oil & Gas Co.'s Isenhower 2-A, spudding.

JOHNSON COUNTY—Culberson, Wyley & Dunlap's A. B. Pullen 1, (T. S. Roberts sur) dr 1275 ft.

PALO PINTO COUNTY—Ed. S. Britton & E. B. Ritchie's Strawn Coal Co. Fee 3, dr 765 ft.. Cameron & Anderson's W. O. Pollard 2, dr 230 ft. J. D. Cranford et al's L. Smith 1, dr 560 ft. Dittman et al's Bigler 1, sd 3680 ft. Hall et al's Chenault 1, sd 715 ft. Hughes et al's Belding 1, dr 2680 ft; Weldon 2, dr 2895 ft. Little Caddo Synd.'s Massie 2, lcn. Moore & Sneboldt's Stuart et al 1, dr 215 ft. McKinney et al's Marsden 1, sd 465 ft. S. W. Manning et al's R. Hitson 1, sd 3675 ft. Phillips et al's Stringer 1, dr 1275 ft. Phillips & Graham's J. A. Caudill 1, sd 3800 ft. Pender Production Co.'s Slemmons 2, dr 3050 ft. B. H. Talbert et al's Slimp 1, sd 1105 ft. Wickens et al's Williams 1, dr 960 ft.

PARKER COUNTY — G. E. LaBeaume's (Trustee) B. C. Evans 1, (2 miles south of Whit) dr 200 ft.

SOMERVELL COUNTY — Glenrose Oil & Ref. Co. et al's J. R. Buzan 1, (4½ miles SW of Glenrose) dr 4000 ft.

BREWSTER COUNTY—Tesnus Oil Corp.'s A. S. Cage 1, sd 2555 ft. Brewster Oil Corp.'s W. H. Kokernot 1, sd 2535 ft. Portland Oil & Gas Co.'s State 1, sd 3050 ft. Nine Points Oil & Gas Co.'s Peralto et al 1, sd 3060 ft. Green Valley Oil Co.'s J. P. Wilson 1, sd 1800 ft; Wilson 2, rigging up.

COKE COUNTY—John Sward's J. R. Mims 1, materials. Mexia-Equitable Oil Co.'s W. H. Hodges 1, sd 2500 ft.

CONCHO COUNTY — Dome Production Co.'s Mrs. C. M. Hartgrove 2, dr 150 ft. Schultz Oil Co.'s W. O. Schultz 1, sd 3225 ft.

CRANE COUNTY — Texas Development Co.'s Jax Cowden 1, sd 2650 ft; Cowden 2, lcn.

CROCKETT COUNTY — Crockett Drilling Synd.'s Robt. Massey 1, sd indefinitely 1755 ft. World Co.'s L. P. Powell 1, sd 1310 ft. Seaboard Oil & Gas Co.'s University 1, lcn. Mid-West Texas Oil Co.'s University 1, (Sec. 14, Blk. 50) lcn. Peer Oil Co.'s University 1, lcn.

CULBERSON COUNTY — David Flood et al's McAlpine & Grisham 2, lcn. J. D. Wesner et al's Mack Sayles 1, sd 3105 ft.

DAWSON COUNTY — Lamesa Oil Co.'s John Burns 1, sd 2150 ft.

ECTOR COUNTY—Farmers Oil Co.'s Andy Newham 1, sd 1400 ft.

FISHER COUNTY—Pyron Oil Co.'s J. S. McCall 1, sd 3120 ft.

GARZA COUNTY—B. V. Blackwell et al's J. M. Boren 1, co after shot 2443 ft. Mitchell-McDonald & Jewell's Clyde Connell 1, sd for cas 750 ft.

GLASSCOCK COUNTY — Gulf Production Co.'s L. S. McDowell 1-C, sr cas 2625 ft. Cushing Ranch Drilling Assn.'s W. H. Sparkman 1, sd 1950 ft. Ledger Co.'s C. I. Brunson 1, sd 3520 ft.

HUDSPETH COUNTY—Boole Oil Assn.'s Gardner et al 1, sd 1540 ft. Hueco Basin Oil Co.'s University 1, sd 2560 ft. Wm. Loftus et al's Minnie Veal Slaughter 1, dr 1590 ft.

HOWARD COUNTY—Big Springs Oil Co.'s Mable O. Quinn 1, sd 3640 ft.

IRION COUNTY—Orient Oil Co.'s J. D. Sugg 1, (Sec. 27, Blk. 2, H&TC sur) sd 1400 ft. Virginia-Texas Pet. Co.'s Tom Green Co. School Land, dr 200 ft.

JONES COUNTY—Anson Oil & Dev. Co.'s C. B. Brown 1, sd 1855 ft. C-H Oil & Dev. Co.'s J. A. Cullom 1, sd 3500 ft.

KARNES COUNTY—Alidor Oil Co.'s A. W. Hyatt 1, sd with show gas 1156 ft.

LOVING COUNTY—P. V. Petroleum Co.'s (was J. J. Wheat) N. E. Chapman 1, fsh tools 715 ft. Ramsey Prod. Co.'s Russell 1, sd 4485 ft; Russell 2, sd 810 ft.

MITCHELL COUNTY — The California Co.'s Clark 1, dr 2635 ft; H. C. Miller 5, dr 2800 ft; W. H. Abrams (T&P) 7, fsh bit 2905 ft. M. E. Eddleman et al's A. C. Gist 1, fsh 2880 ft. Sloan Oil Co.'s H. C. Miller 3, dr 1040 ft. Chal. Daniel et al's W. D. Kynard 1, rig. I. B. Humphreys et al's P. C. Coleman 1, fsh tools after shot 3170 ft. Morrison-Rowe Lease Synd.'s W. D. Kynard 1, co to pump after shot 3045 ft. J. T. Harris et al's W. C. Brown 1, sd 370 ft; Brown 2, sd 205 ft.

PECOS COUNTY — Plymouth Oil Co.'s Perry Ranch 1, rigging up. Arkansas Fuel Co.'s Blackstone & Slaughter 1, dr 200 ft. Transcontinental Oil Co.'s Sherbino 1, dr 745 ft. Trans-Pecos Oil Co.'s H. L. Thomas 1, sd 1830 ft; Z. W. Turney 1, sd 2900 ft; Bennett 1, sd 1240 ft; Troy-Johnson 1, sd 2965 ft. Southern States Lease & Prod. Co.'s J. M. Odem 1, sd 1205 ft.

REAGAN COUNTY — Arkansas Fuel Oil Co.'s University 1, (Sec. 9, Blk. 6) sr 6⅝ cas 3355 ft. Big Lake Oil Co.'s University 14, (Sec. 1, Blk. 2) dr 2745 ft; University 15, (Sec. 12, Blk. 2) running 6⅝ cas 2824 ft. Brandon & McCamey et al's University 1, (Sec. 27, Blk. 2) dr 220 ft. B. H. Cogsdell et al's University 1, (Sec. 23, Blk. 8) spd and sd. Crockett Drilling Synd. et al's University 1, (Sec. 9, Blk. 9) sd for cas 2930 ft. The California Co.'s University 1, (Sec. 13, Blk. 8) dr 1265 ft. H. S. Grayson et al's University

1, (Sec. 28, Blk. 8) dr 200 ft. J. K. Hughes et al's University 1, (Sec. 5, Blk. 9) spd and sd. P. H. Hoffman et al's University 1, (Sec. 23, Blk. 11) spd and sd. Mid-Kansas & Transcontinental Oil Co.'s Hughes-Mason 1, (Sec. 1225, E. L. & RR. Sur) dr 700 ft. Simms Oil Co.'s Sawyer Cattle Co. 1, (Sec. 12, S. A. Glass sur) rigging up. J. T. Stover et al's University 1, (Sec. 34, Blk. 11) rigging up. Texon Oil & Land Co.'s University 1, Group 2, (Sec. 22, Blk. 9) dr 3855 ft; University 2, Group 1, (Sec. 36. Blk. 9) dr 2730 ft; University 3, Group 1, Sec. 36, Blk. 9) dr 2100 ft; University 4, Group 1, (Sec. 1, Blk. 8) rigging up. Transcontinental Oil Co.'s University 1, (Sec. 10, Blk.1) dr 2650 ft. University Oil Co.'s University 1, (Sec. 17, Blk. 10) dr 1740 ft. C. J. Wrightsman et al's Ingham 1, (Sec. 39, Blk. "C", L. & S. V. Ry. sur) sd for cas 305 ft.

REEVES COUNTY — Dixieland Oil Co.'s Oates 2, sd 4505 ft. Dome Drilling Co.'s Ira J. Bell 1, sd for standard rig, td 585 ft.

RUNNELS COUNTY — Subscribers Assn.'s Russell-Giesezke 1, sd 2876 ft.

SCURRY COUNTY—Camp Springs Oil & Ref. Co.'s W. Y. Jones 1, sd 600 ft; J. O. Quinn 1, sd 3570 ft; L. E. Howell 1, lcn. Hermleigh Oil & Gas Co.'s J. W. Burris 1, sd 2965 ft. Stanton Oil & Gas Co.'s J. W. Riley 1, sd 2500 ft.

STERLING COUNTY—Ford & Cogsdell's W. L. Foster 1, dr 665 ft. Chicago-Texas Oil & Gas Synd.'s D. C. Durham 1, sd 1427 ft; Durham 2, 1406 ft. Co-Operative Lease & Dev. Co.'s Douthitt 1, dr by drill stem 1950 ft. Fidelity Oil Co.'s G. R. Hull 1, co to set cas 1708 ft. John W. Sward's L. T. Clark 1, rigging up.

TAYLOR COUNTY — Sanger Oil & Ref. Co.'s McClure 1, lcn; S. P. Hollingshead 1, sd 710 ft; Tom Sawyer 1, sd 2700 ft.

TERRELL COUNTY—R. E. Dunn et al's Fee 1, star machine. Southwest Texas Oil & Gas Co.'s Fee 1, sd 3515 ft.

UPTON COUNTY—W. P. Morris et al's H. M. Halff 1, spd and sd. Bell & Regan et al's University 1, (Sec. 2, Blk. 4) spd and sd. Suggs & Chancellor's University 1, (Sec. 8, Blk. 4) lcn. Virginia-Texas Pet. Co.'s University 1, (Sec. 14, Blk. 15) dr 925 ft.

VAL VERDE COUNTY—East Del Rio Oil Co.'s Russell & Weathersbee 1, sd 2605 ft. Independent Operators' Whitehead 1, sd 2155 ft. Joe W. Morris et al's Moore Estate 1, sd 2280 ft. Re-Clamation Oil Prod. Synd.'s J. B. Moore 1, sd 2575 ft. Hodges & Wright's B. S. Harrison 1, sd 1010 ft.

WARD COUNTY—Cook & O'Brien's G. W. O'Brien 1, sd 1175 ft.

East Central Texas Wildcats

Company, Well and Location	Initial Production Bbls.	Depth
Bowie County—		
Boyd Oil Co.'s C. H. Thompson 1, (Jacob Barkman sur)	*	3007
Freestone County—		
Boyd Oil Co. Roy Simmons 1 (Wortham dist.)	12,000	....
John Hooser et al J. J. Stubbs 1, (Wortham dis.)	*	3160
Limestone County—		
Boyd Oil Co. N. B. Boyd 1, (Wortham discovery)	1500	....
Rockwall County—		
Geo. Rochelle et al J. S. Shook 1, (S. S. McCurry sur)	*	3015

DRILLING REPORT

BOWIE COUNTY—Mission Oil Co.'s W. H. Nelson 1-A, (Nancy Dycus sur) pull cas 2860 ft. Geo. B. McCullough & Roell's W. R. Williams 1, (L. M. Rice sur) spd and sd. Williams et al's Daulby 1, sd 2050 ft. Delaney Oil & Gas Co.'s Rochelle 1, (Collin-McKinney sur) pull liner 2290 ft.

FALLS COUNTY (Kosse district)—C. W. Harrison et al's J. W. Preston 1, (H. Anderson sur) fsh 2915 ft.

FANNIN COUNTY—Lester Petroleum Co.'s S. D. Graves 1, (Wm. Hutchins sur) dr 2075 ft.

FRANKLIN COUNTY — Marshall & De-

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"They don't make 'em any better than Columbus Sucker Rods. The long tapered fillet back of the wrench square, the special tested steel and the workmanship has given us a rod that's sure made good."

Ask the Pumper—He Knows!

Your dealer can supply you—or write us.

The Columbus Sucker Rod Co.

Columbus, Ohio

Genther's Swanner 1, (Hanks sur) sd for cas 1800 ft.

HENDERSON COUNTY—Fred E. Haynes et al's E. G. Bounds 2, (Henry Jeffreys sur) dr 2000 ft.

HOPKINS COUNTY — Gulf Production Co.'s W. J. Davis 1, (Jas. Clark sur) lcn. Bar-Tex Drilling Co.'s C. H. McClure 1, (D. Waggoner sur) rig. Stough & Potts' J. R. Fitzgerald 1, (John Binnion sur) dr 1510 ft. C. A. Kelsey et al's Addie Brooks 1, (D. Dowdle sur) dr 1830 ft.

HUNT COUNTY—Gulf Production Co.'s M. E. Alexander 1, (E. Tidwell sur) lcn.

KAUFMAN COUNTY — Marland Oil Co.'s G. W. Kelley 1, (Green Lee sur) Austin chalk from 2442 to 2879 ft, dr eagle ford shale 3445 ft. J. A. Germany et al's W. S. Kirby 1, (S. Edens sur) co to dd 2896 ft.

LAMAR COUNTY—Interstate Oil Co.'s Ben Haynes 1, (Larkin-Rattan sur) steel dk.

LIMESTONE COUNTY — Hamil Drilling Co.'s Roscoe Cook 1, sd 3675 ft. Z. Gardner et al's E. M. Speight 1, sd 3580 ft. Patty et al's D. B. Hornbeck 1, (John Boyd sur) dr 2220 ft. Pure Oil Co.'s J. W. Webster 1, (E. W. Jackson sur) fsh drill stem 2865 ft.

NAVARRO COUNTY—Bankers Trust Co.'s McCormick 1, (18 miles NW of Corsicana) sd 1829 ft. Ilseng et al's W. L. Roberts 1, (Jos. Mayor sur) sd 1740 ft. Elliott & Nicolle's D. J. Westbrook 1, (H. H. Horn sur) rigging up. Gilbert Johnson et al's J. W. Greer 1, (G. Rushian sur) sd 3260 ft.

RAINS COUNTY—Ferguson & Short Bros.' W. D. Peeples 1, (J. A. Tibbles sur) spd. & sd.

RED RIVER COUNTY—Johnson Pet. Co.'s Antone & Worley 1, (Robt. Gamble sur) dr in lime 3505 ft.

TITUS COUNTY — Magnolia Pet. Co.'s George Antone 1, (M. V. Delgado sur) water trouble 1235 ft.

VAN ZANDT COUNTY—Porter-Holmes & Frank Buttram's J. T. Dunbar 1, (Van Sickle sur) testing 3355 ft.

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North Texas Wildcats

DRILLING REPORT

BAYLOR COUNTY—Batchelder & King's E. S. Wallace 1, sd 100 ft. Crittenden et al's Hawkins 1, sd 2015 ft. Dallas Oil Co.'s Shawver Bros. 1, sd 1850 ft. C. B. Jetter et al's F. Gatzki 1, sd 500 ft. Lehman et al's Shawver Bros. 1, fsh 820 ft. Magnolia Pet. Co.'s W. H. Portwood 2, dr 960 ft. D. H. Moore et al's H. H. Fancer 1, sd 980 ft, est 2 mil ft. gas. Nelson et al's J. Sykora 1, dr 1500 ft. Richardson Bros. et al's Wallace Est. 1, sd 220 ft.

CLAY COUNTY—Atlantic City Prod. Co.'s Scaling 1, sd 2890 ft. J. T. Cumley's N. C. Camp 1, sd 1802 ft. L. R. Dixon et al's R. H. Godfrey 2, spudded and sd. E. C. D'Yarmitt's Scott 2, dr 500 ft. Knox Finley Dev. Co.'s Scott 4, dr 700 ft. Lone Star Gas Co.'s Lockridge 2, bailing, sand 1515-22 ft. Morris & D'Yarmitt's J. Stephenson 1, sd 1260 ft. J. O'Neil's O. A. Ross 1, dr 2100 ft. Piedmont Oil Co.'s Dean 1, sd 1210 ft. Shelton Oil Co.'s H. Boddy 1, dr up ur lugs, td 1370 ft. Somers & Nantz's Mary C. Parker 1, sd 1000 ft.

COOKE COUNTY—Big Indian Oil Co.'s W. B. Davis 1, sd storage 3525 ft.

DENTON COUNTY—Arbuckle Asphalt & Pet. Co.'s K. Fonteberry 1, sd 500 ft.

GARZA COUNTY—B. V. Blackwell et al's J. M. Boren 1, co after shot at 2415-50 ft. Union Pet. Corp.'s C. C. Connell 1, sd 750 ft.

GRAYSON COUNTY — W. R. Shankle et al's J. Marshall 1, second hole, sd 1100 ft.

KNOX COUNTY—Brazos Bend Oil Co.'s J. E. Clark 1, sd 2020 ft. Evans et al's Ella Lawson 1, sd 765 ft.

MONTAGUE COUNTY—Guaranty Fund Oil Co.'s E. A. Jordan 1, dd, fsh 3460 ft. Gulf Production Co.'s M. E. Benton 1, (rotary) dr 3185 ft. Petroleum Producers Co.'s C. H. Howard 1, dr 1100 ft; N. J. Howard 1, lcn; S. E. Howard 1, lcn. Texhoma Oil & Ref. Co.'s O. Cato 1, dr 2250 ft.

STONEWALL COUNTY—Elder Nance's Ward Estate 1, dr 1400 ft.

THROCKMORTON COUNTY—Clark et al's J. L. McCarson 1, dr 450 ft. Cragin et al's J. R. Burkhalter 1, sd 50 ft. Groves & Burton's Reynolds Cattle Co. 1, sd 672 ft. Hamilton et al's J. T. Odell 1, dr 1690 ft. C. F. Kelsey's W. D. Housley 1, sd 50 ft. King et al's A. P. Broyles 1, sd 825 ft. Bruce Larkin et al's R. E. Conger 1, preparing to dd, td 1430 ft; Mrs. T. S. Richards 1, ur casing 790 ft, est 1 mil ft gas. McGee et al's J. T. Davis 1, dr 510 ft. McNeil et al's Travis Co. Sch. Ld. 1, rigging up. McKnight et al's A. H. Housley 1, rigging up. Schimmell et al's H. W. Kelley 1, sd 100 ft. Shamrock Oil Co.'s Mrs. A. McKnight 1, sd 3425 ft. The Texas Co.'s A. L. Smythe 1, dr 400 ft. W. A. Whatley et al's Parrott 1, sd 800 ft.

WILBARGER COUNTY — American Ref. Co.'s W. T. Waggoner 1, dk. Barker & Hamilton's A. P. Morris 1, sd 305 ft. Barkley & Meadows' W. H. Stephens 1, dr 800 ft. Bridwell, Heydrick & O'Donohoe's S. A. Dill 2, dr 1900 ft. Bridwell & Heydrick's W. H. Stephens 2, drilled out plug, estimated 10 million ft gas, sand 1245-60 ft; Stephens 3, dr 2000 ft; Stephens 4, dr 1910 ft; Stephens 5, dr 1450 ft. Bidrwell & Heydrick and T. P. Coal Co.'s W. T. Waggoner 1, rigged up. Burton & Ruff's W. T. Waggoner 1, dk. Dill Farm Oil Co.'s W. B. Dill 1, dr 2250 ft. Dumas & Ellis' W. H. Stephens 1, sd 1360 ft. Electra Gulf Oil Co.'s M. Ditto 1, rigged up. B. Harrell et al's W. T. Waggoner 1, rigged up. Hart et al's Smith 1, sd 2100 ft. Humble Oil & Ref. Co.'s R. L. Castlebury 1, dr 1205 ft; W. T. Waggoner 1, dk. C. F. Kolp's W. T. Waggoner 1, testing 2045 ft, estimated 200 bbls. J. B. Levy et al's D. Wheeler 1, dr 600 ft; W. T. Waggoner 1, spudded. Little Oil Co.'s J. T. Youngblood 1, dr 800 ft. McCamey et al's G. W. Richardson 1, bailing 2025-35 ft. Ed Mulligan et al's W. T. Waggoner 1, rigged up. Murchison & Pigg's Davis 1, sd 1025 ft. Mutual Oil Co.'s C. Zipperle 1, rigged up. Noble Oil Co.'s W. T. Waggoner 1, dr 2030 ft. Prince Bros.' C. Zipperle 1, dr 2040 ft. Ray & Massey's W. B. Dill 1, sd 2075 ft; D. Bond et al 2, dr 1810 ft; Bond et al 3, dr

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1790 ft; Bond et al 4, dk. W. J. Sheldon et al's W. J. Sheldon 1, dr 1810 ft. F. S. Skinner's Fred Streit 1, rigged up. South Vernon Oil Co.'s W. H. Stephens 4, dr 1990 ft; W. H. Stephens 5, dr 1824; Stephens 6, dr 200 ft; Stephens 7, rigging up; Stephens 8, rigged up; Stephens 9, dk. Staley & Wynne's W. T. Waggoner 1, dr 1450 ft; W. H. Stephens 1, dk. Texas Oklahoma Oil & Ref. Co.'s J. Bowers 1, dr 1500 ft. The Texas Co.'s R. L. Castlebury 1, lease B, rigging up. R. M. Waggoner & Winnipeg Oil Co.'s Bond et al 1, dr 1800 ft. Wells & Guiberson's W. T. Waggoner 2, dr 1800 ft. Winnipeg Oil Co.'s Bond et al 3, dr 1700 ft; Bond et al 4, rigged up. G. C. Wood et al's A. Streit 1, dk.

Texas Panhandle Wildcats

CARSON COUNTY — American Ref. Co.'s Burnett 3, 2200 ft. J. Crosbie et al's Burnett 1, dr 2190 ft. Culbertson Bros. et al's V. B. Armstrong 1, dr 3160 ft. Danciger Oil & Ref. Co.'s Burnett 1, dr 3030 ft. Gates Oil Co.'s Burnett 1, lubricating off approximately 30 million ft gas, td 2960 ft. Gulf Production Co.'s Burnett 5, dr 680 ft; Burnett 6, rigging up; Burnett 7, material; Burnett 1-A, co 3090 ft. Marland Oil Co.'s Burnett 1, dr 2500 ft. Olson Bros. et al's Burnett 1, fsh 2500 ft. Premier Oil Corp.'s Burnett 1, sd 1300 ft. W. W. Silk et al's Burnett 3, second hole, sd 2070 ft. Skelly Oil Co.'s Burnett 2, dr 2000 ft. The Texas Co.'s Burnett 4, co 2970 ft; Burnett 5, dr 150 ft; Mary C. Burnett 2, second hole, dr 2140 ft.

COTTLE COUNTY—T. J. Woodley et al's A. Dulaney 1, fsh 2600 ft.

GRAY COUNTY—A. R. Anderson's C. W. Bradford 1, sd 500 ft. C. H. Clark et al's Coombs & Worley 1, dr 2210 ft. Danciger Oil & Ref. Co.'s J. B. Boers 1, lcn. Frank Dillard's John Henry 1, dr 2800 ft. W. H. Holmes' J. S. Morse 2, dr 2450 ft. Wilcox Oil & Gas Co.'s J. H. Wilson 1, (rotary) sd 3520 ft.

HUTCHINSON COUNTY — Amarillo Oil Co.'s L. Bivens 2-B, dr 2550 ft, approximately 45 million ft gas. R. G. Barnum et al's Johnson 1, sd 2860 ft. Dixon Creek Oil Co.'s H. C. Smith 1, dr 1500 ft. Douglass Oil Co.'s J. A. Whittenberg 1, wtg on cas 2050 ft. Gulf Production Co.'s E. Cockrell 1, dr 3220 ft, show of oil. Prairie Oil & Gas Co.'s Diana Shaw 1, set cas 1940 ft. Twin Six Oil Co.'s W. L. Kingland 1, dr 2904 ft. Western Enterprise Oil & Gas Smith-Capers 1, dr 3027 ft. J. W. Wilson et al's Whittenberg 1, fsh tools, bldg tanks, td 2910 ft.

KING COUNTY—W. G. Trammell et al's Spikes 1, rigged up.

MOORE COUNTY — Amarillo Oil Co.'s Masterson 1, second hole, dr 1400 ft.

POTTER COUNTY—Amarillo Oil Co.'s L. Bivens 3-A, lcn; W. H. Bush 1, cemented cas 2960 ft; J. C. Warrick 1, dr 2100 ft.

ROBERTS COUNTY — Phil Engle et al's Mrs. Ledrick & Sons 1, sd 1730 ft.

WHEELER COUNTY — Mid-Continent Oil Synd.'s Ember 1, collapsed cas 500 ft. W. D. Shedden et al's B. F. Westmoreland 1, co 480 ft. Union Petroleum & Supply Co.'s O. T. Nicholson 1, sd 1500 ft. J. Whittington's Williams & Laycock 2, dr 1650 ft.

San Antonio District Wildcats

ATASCOSA COUNTY—DeLange-Eiser Co.'s Tom 2, dr 3340 ft, reported excellent showing of gas. Tipps Oil Co.'s No. 1, no report.

BEXAR COUNTY—Avaitors' Swearingen 1, dk. F. B. Slick's No. 1, dr. White & Hampton's Swearington 1, dr.

DUVAL COUNTY — Co-Operative Drilling Co.'s Dinn 1, sd 2070 ft. Mesquite Oil Co.'s No. 1, setting liner at 2162 ft. Hill-Pierce Corp.'s Martinez 1, dr. Cole Pet. Co.'s No. 5, r at 2215 ft; 6, dr below 1688 ft; 7, lcn.

GUADALUPE COUNTY — J. K. Hughes Dev. Co.'s Allen 20, no report. United North & South Oil Co.'s August Glenwinkle 1, dr 250 ft; Baker 22, setting 6⅝-inch cas; 25, producing 900 bbls. Allen Burman's Wade Battle 1, dr 1880 ft. Magnolia Pet. Co.'s Schubert 12, set 6⅝-inch cas; 13, dk. Sight et al's

Springs 1, dr. Ross & Green's W. W. Pryor 1, dr 1580 ft. (corrected report). McClannahan's Winkle 1, trying to pull 6⅝-inch cas. Pittman & Billingsley's Thomas 1, dk. Jennings et al Lynch 1, dr 2040 ft. Walhunda Pet. Co.'s Smith 1, dr 2075 ft.

JIM HOGG COUNTY — Simms Oil Co.'s Wood 1, Sur. 84, dr below 650 ft. Texo Oil Co.'s No. 1, Sur. 256, dk. Henne-Winch-Farris' Martinez 4, flowing by heads, production undetermined; 5, spudding in; 6, dk. Humble Oil & Ref. Co.'s Las Moritas Grant, preparing to spud in. Laurel Oil Co.'s Palacious 2, sd 1833 ft. Plateau Oil & Gas Co.'s No. 1, blk. 15, Sur. 26, lcn. Bailey et al Martinez 1, rigging up. J. W. Pippin et al No. 1, Sur. 51, dr below 1800 ft. Magnolia Oil Co.'s Thompson 1, spudding in. Weber Oil Co.'s Holbein 4, preparing to dr out plugs and test. Lang et al's No. 1, spudding in. Shasta Oil Co.'s Holbein 1, resetting cas. O. W. Killam's No. 1, Sur. 16, blk. 255, coring at 1985 ft. Witherspoon Oil Co.'s Holbein 1, spudding in.

LIVE OAK COUNTY — Grubstake Investment Assn.'s Nichols 3, set cas. Glasco & Fallin's Tip 1, dr. Southern Natural Gas Co.'s Nos. 9, dr; 10, lcn. Coquet et al's Hicks 1, dr.

ZAPATA COUNTY — H. J. McMullen's Serapio Vela 1, 2 and 3, lcns. R. K. Bateman et al's No. 1, Sur. 617, dr 1000 ft. Mirando Oil Co.'s No. 16, Sur, 307. sd 2020 ft. Killam Interests' No. 1, Sur. 307, set cas at 1664 ft. Hill et al's Haynes 1, dr. Panuco Prod. Co.'s Vela 1, dr below 400 ft.

Coastal Wildcats

ANGELINA COUNTY—Ferdinand Heine's Heine 1, J. H. Ellison sur, 150 ft to S and 170 ft to W line, installing new pump. Peavy Roller et al's Peavy 1, 6 miles of Lufkin, Browning sur, 300 ft NW Peavy Homestead, temp. abn.

BRAZOS COUNTY—Bryan Pet. Co.' well, midway between College and Wellburn, C. Burnett sur, dr below 2300 ft in hard formation.

BRAZORIA COUNTY—D. F. Bryan Prod. Co. and Hamm et al's Bryan 1, at Freeport, J. G. McNeel sur, dr below 3050 ft in sand and boulders. Hamm et al's Bryan Estate 1, Damon Homestead, T. H. Bryan Estate, preparing to set strainer at 1500 ft.

FORT BEND COUNTY—Gulf Prod. Co.'s Moore No. 2, Burnap sur, 1050 ft. N. No. 1, dr below 260 ft in gumbo. Neilan Oil Co.'s B. Frederick 1 4½ miles W of Rosenberg, sec. 19, S. George sur, N. W. cor, dr. Pathfinder Oil Co.'s Davis Estate 5, sec. 101, Philo-Fairchilds sur, dr below 800 ft. Jas W. Rich et al's Moore-Hager 2, at Big Creek, 300 ft NE No. 1, SE side of dome, ready to spud in. Rycade Oil Corp.'s Nash 2, Alsberry sur, 400 ft E and 600 ft S of NW cor Nash's 486 acre tract, 28 deg. NW and 4650 ft NW No. 1, dr below 1252 in gumbo; Nash 3, 1000 ft W No. 1, dr below 75 ft in sand. Texas Co.'s Fee No. 1, at Big Creek, 2100 ft NE of W cor and along NW line, 50 ft SE at right angles from Texas Co.'s N line, dr below 2770 ft in gumbo.

GALVESTON COUNTY—Gulf Prod. Co.'s George E. Smith 1, at High Island, sd.

GRIMES COUNTY—L. F. McCausland et

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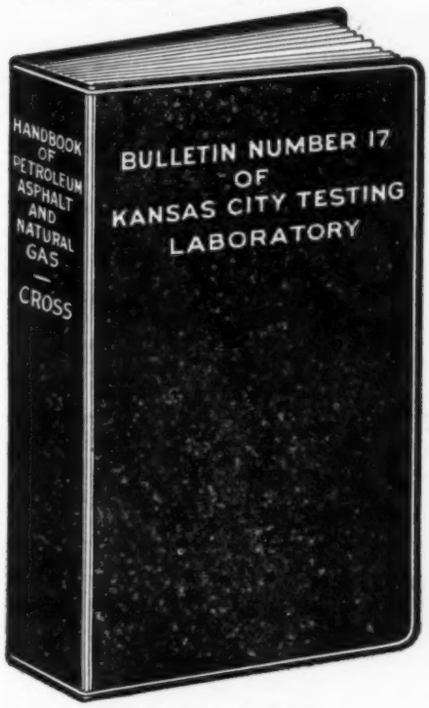

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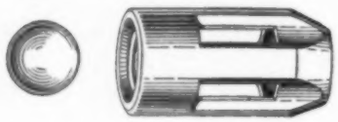

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al's Dodd 1, 3 miles W of Iola, Timothy Jones league, 150 acre tract, Dodd farm, dr below 2775 ft.

HARDIN COUNTY—Kirby Pet. Co., Munson & Anderson et al's Hodges 3, near Batson, Hodges 202 acre lease, to test upper sand at about 2800 ft.

HARRIS COUNTY—Dome Dev. & Pet. Co.'s Schneider 1, Schneider farm, blk 41, John D. Taylor sur, temp abn. Kane Exploration Co.'s T. J. Rock 1, F. Rankin sur, west central dr below 300 ft.

JACKSON COUNTY—Vanderbilt Pet. Co.'s Seliner 1, 4 miles N Vanderbilt, C. W. Hall sub-division of Harwood-Burns ranch, sd at 2720 ft in lime and gumbo. Jackson County Oil Synd.'s Drushell 2, flowing 50,000 cubic ft gas.

JEFFERSON COUNTY—Houston Oil Co.'s Gulf-Pipkin 1, Pipkin & Davis sur, td 3007 ft, hard sandy lime rock, fishing; Sun-Pipkin 1, Pipkin & Davis sur, dr below 3071 ft in hard shale and lime. Paggi Bros.' Miller 1, N. F. Lazering league, 300 ft W of public road, 1000 ft N of S line of league, dr below 2080 ft.

LIBERTY COUNTY—Texas Co.'s Fee 1, 2000 ft NW of Ott No. 1, dr below 550 ft in sand and shale. Rycade Oil Corp.'s Gray 1, offset to Sisk No. 1, 150 ft N of N line of Texas Co.'s 20 acre lease, 150 ft W of E line of blk 2, dr below 4227 ft in shale and sand; Gray 2, 600 ft N of S line and 1400 ft W of E line of blk 2, lcn.

MILAM COUNTY — Sinclair Oil & Gas Co.'s Smith 1, 12 miles SE of Cameron, Smith-Turney structure, 7000 acre blk, 300 ft N and 300 ft W of NW cor R. N. Turney 162 acre lease, land of H. F. Smith, Jr., dr below 2539 ft in shale.

WHARTON COUNTY — Gulf. Prod. Co.'s Cloud 1, abn at 1000 ft; Cloud 2, 1400 ft E No. 1, lcn; Felder 3, 20 ft to W and 1735 ft to N line of blk 3, S. Ingram sur, lcn.

(Continued from page 65)

D. M. Ross' H. A. Waller No. 1, sec 6, TC&SL sur, 1320 ft to N and 450 ft to E line.

Wilbarger County—Staley & Wynne's W. H. Stephens No. 1, sec 83, H&TC Ry. sur, 150 ft to N and W lines. Winnipeg Oil Co.'s Bond, Hawkins & Williams No. 4, sec 100, H&TC Ry. sur, 150 ft to S and W lines. B. Harrell's W. T. Waggoner No. 1, sec 37, H&TC Ry sur, 660 ft to E and 330 ft to S line. Humble Oil & Ref. Co.'s W. T. Waggoner C-1, sec 53, H&TC Ry sur, 1470 ft to W and 150 ft to S line. Texas Co.'s W. T. Waggoner No. 927, N. Keys sur, 2294 ft to N and 250 ft to E line.

Wharton County—Gulf Prod. Co.'s Z. Felder et al No. 3, sec 9, S. Ingram sur, 20 ft to W and 1375 ft to N line of blk 3. Humble Oil & Ref. Co.'s Watkins No. 1-A, James Cochran sur, 500 ft to S and 200 ft to E line.

Walker County—Big Ridge Oil & Gas Co.'s L. Eastham Jr., No. 1, J. S. Collard sur, 2202 ft to S and 408 ft to W line.

Webb County—Magnolia Pet. Co.'s No. 19, no lcn.

Young County—O. J. McKnight's Mrs. K. Haley No. 1, 2440 TE&L sur, 150 ft to S and W lines. Kentucky Oil Corp.'s C. L. Davis No. 5, D. White sur, 300 ft N No. 1. C. P. Burton's R. C. Campbell No. 1, 1463 TE&L sur, 150 ft to S and E lines. Burns & Maxon's H. N. Tucker No. 1, 180 TE&L sur, 150 ft to S and E lines. Daniels & Rutis E. C. Keith No. 1, 267 TE&L sur, 835 ft to N and 484 ft to W line. Rosell Co.'s J. R. Wilson No. 1, sec 67, TE&L sur, 150 ft to N and E lines. Panhandle Ref. Co.'s A. Beardon No. 1, J. Poiteventa sur, 750 ft to E and 450 ft to S line. Simms Oil Co.'s J. D. Carpenter No. 1, 237 TE&L sur, 861 ft to N and 150 ft to E line. D. M. Ross' J. K. Thomas No. 1, 155 TE&L sur, 150 ft to N and E lines. 900 Oil Co.'s S. M. J. Benson No. 5, 1391-1392 TE&L sur, 1100 ft S No. 1. Christie Bros.' J. W. McClaren No. 3, O. T. Criswell sur, 600 ft to W and 150 ft to S line. Reed & McFarlane's I. D. Clark No. 1, 202 TE&L sur, NW cor Littlefield. Murchison & Fain's R. Campbell No. 1, 236 TE&L sur, SW cor. Knight & Hines' W. J. Logan No. 1, 407 TE&L sur, 150 ft to S and E lines.

Arkansas Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Hempstead County—		
Fullilove et al's Ford 1, 31-14-23..	*	2519
Nevada County—		
Kan-Ark Oil Co.'s Honea 1, 12-12-21	*	1957
Union County—		
Harrell Trust's Teele 1, 11-19-12...	*	3177

DRILLING REPORT

CLARK COUNTY — Southern Drlg. Co.'s Burrows 1, 35-10-20, sd 714 ft.

COLUMBIA COUNTY—Hargis et al's Souter 1, 24-17-22, sd 35 ft. Heath Trust's Williams 1, 1-19-21, set 6⅝-inch 2112 ft. Johnson et al's Sailles 1, 18-17-22, sd 915 ft. Kemp et al's Emerson 1, 7-19-19, sd 2260 ft. Moore et al's Fullenwilder 1, 12-17-22, dr 1905 ft. Phillips et al's Davis 1, 15-18-21, sd 2745 ft.

DALLAS COUNTY — Durr et al's Riggs-Matlock 1, 33-8-15, sd 2400 ft.

DREW COUNTY—Graves et al's Karnes 1, 20-14-6, sd 2385 ft. King & Wilson's Trotter 1, 12-13-6, sd 1250 ft. Rhodes et al's Harris 1, 5-13-8, fsh 2305 ft. Spooner et al's Meyer 1, 4-16-17, sd 50 ft.

GRANT COUNTY—Arnold & Hill's Meek 1, 8-4-11, dk. Haley & Evans' Pike 1, 8-6-11, sd 50 ft.

HEMPSTEAD COUNTY — Hempstead Oil Co.'s Nicholls 1, 17-11-25, sd for cas 1980 ft. Wooten et al's Walker 1, 22-11-24, dk.

LA FAYETTE COUNTY — Ken-Saw Pet. Co.'s Red River Valley Lumber 2, 3-20-24, dk.

LINCOLN COUNTY—Bennett et al's Jones 1, 33-10-6, dk. Cambrian et al's Fee 1, 3-9-8, dr 1810 ft.

LITTLE RIVER COUNTY—Gaines et al's Thomas 1, 16-13-29, dr 3600 ft. Grote et al's Allen 1, 2-13-29, sd 3000 ft. Johnson et al's Hawkins 1, 10-11-31, sd 1350 ft.

MILLER COUNTY — D. Norton et al's Thomas 1, 12-20-28, lcn.

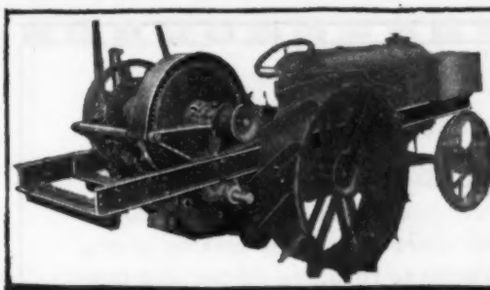
NEVADA COUNTY — Keystone Oil Co.'s Moss 1, 7-14-20, dk. Ouachita Valley Oil Co.'s Phillips 1, 30-14-20, dr 1110 ft. Prescott Oil Co.'s Henry 3, 10-12-20, sd 1000 ft. Zingg et al's Groves 1, 22-10-23, sd for cas 1020 ft.

OUACHITA COUNTY — Bray & Hawthorne's Copenhagen 1, 13-14-17, dr 2535 ft. Morgan & Gaughan's Morgan 1, 3-15-19, dr 2240 ft. Dee et al's Criner 1, 21-15-19, dk. Reynolds & Thompson's Graves 1, 16-14-18, dr 800 ft.

UNION COUNTY—Berry et al's Union S. M. 1, 14-19-11, dr 1200 ft. O'Brien et al's Fee C-1, 13-19-17, dr 1560 ft. Traffic Oil Co.'s Goodwin 1, 20-16-14, sd 3026 ft.

The Central Steel Company, Massillon, Ohio, manufacturers of Agathon Alloy Steels, announces the appointment of A. B. Cooper as its Philadelphia District sales manager, with offices in the Widener Building. Mr. Cooper has been dentified with the steel industry for 17 years in both operating and sales work and is well known in the Philadelphia territory where he was formerly with the Tacony Steel Company and the Penn Seaboard Steel Corporation.

O. B. Fultz, general superintendent of drilling for Mills Bennet of Houston, has been transferred from the Houston headquarters to Vernon, Texas, where he will have charge of the company's development work.



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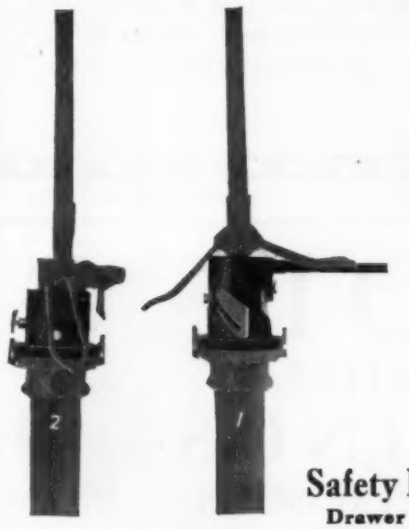

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Tribal Osage Oil Leases at Public Auction, December 18, 1924, By U. S. Government

December 18, 1924, at Pawhuska, Oklahoma, about 30,000 acres will be offered for oil leases in quarter section tracts. Bids will be for bonus in addition to royalties, 25 per cent payable on day of sale, balance in three annual installments, with acceptable security. Within advertised area there are about 9,200 oil wells producing from one barrel to two thousand barrels each, the total daily production for September, 1924, being about 100,000 barrels; also, there are about 150 wells drilling. All lands are now leased separately for gas. Blue print maps of areas advertised, showing tracts producing oil or gas, can be had for fifty cents each, also logs of producing oil or gas wells for twenty-five cents each well. Write U. S. Superintendent, Osage Agency, Pawhuska, Oklahoma, for maps, logs, or other information.

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Iron and Supply Company Opens New Office in Kansas

Winfield, Kansas, Nov. 29.—The Mountain Iron and Supply Company, a West Virginia corporation, is opening a branch store in Winfield to better serve its customers in Cowley and surrounding counties in southern Kansas. Paul Warmbrodt is the local representative for the company.

Louisiana Wildcats

COMPLETIONS

Company, Well and Location	Initial Production Bbls.	Depth
Bossier Parish—		
Webb et al's Catlett 1, 27-19-11....	*	1400
Claiborne Parish—		
Black Oil & Gas Co.'s Aubrey 1, 20-21-8	*	1450
Pomeroy et al's Hurman 1, 34-20-6.	*	3072
Red River Parish—		
LeGrande et al's Fee 3, 2-14-12.....	*	2440
Union Parish—		
Cargile et al's Heard 1, 21-21-3w....	*	2409

DRILLING REPORT

BIENVILLE PARISH — Roxana Pet. Co.'s Bryan 1, 30-17-6, dr 75 ft.

BOSSIER PARISH—Armistead et al's Bernstein 1, 11-20-13, sd 1180 ft. Atlantic Oil Prod. Co.'s Bodcau 2, 24-23-12, rig. Coker et al's Rhodes 1, 31-21-11, dk. Skannal et al's Roscoe 1, 14-17-12, dr 1350 ft. Standard Drlg. Synd.'s Johnson 1, 18-18-11, dr 1100 ft.

CADDO PARISH — Ark-Caddo Oil Co.'s Nickerson 1, 30-19-15, sd 2450 ft. Brewer et al's Sharp 1, 10-18-16, rig. Crude Oil Co.'s Alexander-Ledbetter 1, 27-16-14, sd 3666 ft. Glassell et al's Florsheim 1, 9-17-16, dr 600 ft. Lewis Oil Corp.'s C. M. L. 5, 24-23-15, set 6-inch 1037 ft. Richardson Oil Co.'s Bickham 1, 15-18-15, dr 2000 ft. Stith et al's Pitts 1, 11-23-16, rig. Waterman Drlg. & Dev. Co.'s Waterman 2, 18-17-16, dr 1650 ft.

CALDWELL PARISH—Culver et al's Culver 1, 24-14-4e, dr 3130 ft.

CLAIBORNE PARISH— Claiborne-Lincoln Synd.'s Fields 3, 22-19-5, dr 1040 ft. Collins & Woodley's Fortson 1, 28-21-5, dr 2550 ft. El Dorado Chief Oil Co.'s McElwee 1, 13-22-7, set 8-inch 2101 ft, correction. Evans et al's Taylor 1, 5-19-5, rig.

DE SOTO PARISH — Daniels & Roscoe's Pollack 1, 36-11-24, set 6-inch 2390 ft. Tarver et al's Palmer 3, 3-11-14, dr 2320 ft; Conley 1, 2-14-10, bldg dk. Ulrey et al's Patterson-Robinson 1, 22-11-12, bldg dk. Wright et al's Sutherland 2, 19-12-14, sd 2614 ft.

GRANT PARISH—Grant Parish Pet. Co.'s Ball 2, 1-7-1w, rig.

LA SALLE PARISH — Bur-Ban Oil Co.'s Urania 2, 21-11-2e, tested sw, showing of oil, 2090 ft. Columbia O. & G. Co.'s Urania Lbr. 1, 22-10-2e, sd 200 ft. Gulf Ref. Co.'s Urania 1, 22-11-2e, dk; Urania A-1, 22-11-2e, sd 1022 ft. Stovall Drlg. Co.'s Louisiana-Central Lumber 2, 27-10-2e, sd 2000 ft. Urania Pet. Co.'s Urania 4, 20-10-2e, sd 1573 ft.

LINCOLN PARISH—Buckner et al's Barrett 1, 13-20-3w, set 8-inch 1050 ft.

OUACHITA PARISH — Dickson & Frue's Goodwin 1, 24-18-2e, set 8-inch 2070 ft.

UNION PARISH—Jones & Walker's Feazel 1, 6-19-2e, dr 1750 ft. Roxana Pet. Co.'s Voss 1, 18-22-2w, lcn. Simms Oil Co.'s James 1, 16-22-3w, dk.

WEBSTER PARISH — Arkansas Natl. Gas Co.'s Frazier 1, 27-23-11, set 12¼-inch 136 ft. Belchic & Laskey's P. W. L. Co. 6, 33-23-11, rig. Bethany O. & G. Co.'s Wiley 2, 6-22-9, rig. Butler & McMurray's Allen 1, 35-23-11, rig. Haenlen et al's Roberts 1, 9-23-10, dr 1250 ft. McDowell et al's Hortman 1, 15-20-10, dr 2165 ft. Kennedy et al's Ambrose 1, 19-20-10, dk. Palmer Corp.'s Miller 1, 29-21-10, ru to deepen, 3378 ft. S. S. Raymond et al's Coyle 1, 28-21-10, dr 3105 ft. The Texas Co.'s Tinsley 1, 35-23-10, dr 960 ft. J. K. Wadley's Dickson 1, 31-23-9, dk.

Oklahoma Wildcats

ALFALFA COUNTY—McGuinnis & Ward's Watts 1, C NE SW 21-27-10w, sd 3240 ft. Armstrong, Henley & Piffles' Turnbull 1, C NW SE NW 25-24-11w, dr 1750 ft.

ATOKA COUNTY — McPhearson et al's Wild 1, SWc NW 7-2-9, co 4323 ft. Henson et al's Dabney 1, C SE NW 17-4-11, sd 2260 ft. J. P. Torrance et al's Fee 1, SWc NE 1-2-9, sd 2235 ft hfw. Wapanuka Dev. Co.'s Underwood 1, C W L SE SE 28-2-9, sd 1343 ft.

BLAINE COUNTY—Meyers et al's Cronister 1, SEc NW NW NE 7-18-15w, sd 965 ft. Thompson's Dickerman 1, C SE SE SE 26-15-12w, sd 3213 ft. Okomo Oil Co.'s Ekleman 1, SWc 21-13-10w, sd 2610 ft.

BRYAN COUNTY — Alexander's Hampton 1, SEc NE 26-7-11, sd 1400 ft.

CANADIAN COUNTY — Thos. Revelle's Dawson 1, SEc 34-13-9w, fsh 2845 ft. Carroll et al's Sutter 1, SEc 2-13-8w, sd 110 ft.

CLEVELAND COUNTY — Carr Oil Co.'s Holland 1, NEc SE 31-10-4, sd 2620 ft.

CUSTER COUNTY—Hoover Oil Co.'s No. 1, NWc SE 17-13-14w, sd 2510 ft.

COAL COUNTY—Beaman et al's Payte 1, SWc NW NE 32-2-9, sd 2780 ft.

GRANT COUNTY—Embry et al's Edwards 1, C SE SE NW 20-26-4w, sd 1000 ft. Midwest & Gulf's Moon 1, NEc NW 8-27-8w, sd 2490 ft. Phillips Pet Co.'s Ridings 1, NEc SE NW 29-29-4w, sd 4667 ft.

GREER COUNTY—Neal et al's Johnson 1, SEc NE NW 3-7-22w, dr 1245 ft. Boss & Terrill's Van Victor 1, C SW SW 4-3-22w, dr 2150 ft.

HUGHES COUNTY — Mathers & Skelly's McClain 1, C SW SW 4-5-11, r 3026 ft. Dixie Oil Co.'s Irvine 1, SW NW SE SE 18-8-10, dr 3040 ft.

JEFFERSON COUNTY—Connell Oil Co.'s Anderson 1, SEc NE 31-4-8w, dr 1402 ft. Landis et al's Standfield 1, SEc 33-7-6w, coring 1760 ft. Roy Johnson's Mullen 1, NEc NW 9-4-4w, dr 2825 ft. Barker et al's Major 1, C SE SW 34-5-6w, spd and sd Godley Oil Co.'s Woodworth 1, C NE NW 36-5-4w, sd 495 ft. Lugg et al's No. 1, C SE NW NE 3-7-7w, dr 2475 ft.

JOHNSON COUNTY — Washita O. & G. Co.'s Trootes 1, C SE SE 7-4-4, sd 2180 ft. United "8" Oil Co.'s Hodlen 1, NWc SW NW 36-5-6, sd 2330 ft.

KAY COUNTY—Day Oil Co.'s Vandatta 1, SWc NW 8-26-2w, sd 2835 ft.

KIOWA COUNTY—Connor et al's No. 2, NEc NW NW 34-7-16w, sd 925 ft. Aubyme Oil Co.'s No. 1, SWc NE 3-7-17w, dr 2360 ft. Alcorn Oil Co.'s No. 1, NEc SE SE SW 13-7-16w, dr 1340 ft.

LINCOLN COUNTY—Sun Ray Oil Co.'s Gallagher 1, C N L SE SE 18-13-5, sd 3825 ft hfw. P. & R. Corp.'s Hainzig 1, SWc NW SW 14-13-6, sd 4327 ft. Douglas Oil Co.'s Ewing 1, NWc 7-13-3, sd 2965 ft. J. C. Cook's Richardson 1, SWc NW SW 8-12-5, dr 2190 ft. Eugene Costa's Dodrill 1, SEc NW 26-12-2, dr 2260 ft. Wilcox O. & G. Co.'s Smith 1, SEc SW NE 12-12-3, dr 480 ft.

LOGAN COUNTY—Buford-Brim Oil Co.'s Newman 1, NWc NW 32-19-3w, sd 2345 ft. Oklahoma Drilling Co.'s Johnson 1, SEc SW 36-15-2w, sd 1716 ft. Franklin Oil Assn.'s Moore 1, NWc SE SE 35-17-4w, dr 2090 ft. McMunn & Nixon's Fields 1, SWc NE SE 35-17-4w, rig. Haley & Pioneer Pet. Co.'s Quair 1, SWc SE 33-18-3w, rig rebuilt. Pluto O. & G. Co.'s Lair 1, C S L N½ SE 28-16-1w, fsh 750 ft. Gilliland Oil Co.'s Ohm 1, C NW 5-19-2w, sd 2854 ft show gas. Magnolia Pet. Co.'s Pritchard 1, NWc 23-15-1s, dr 2800 ft.

LOVE COUNTY — Driller Syndicate Oil Co.'s Wilson 1, NWc SE 11-7-2w, sd 2830 ft. Simms Oil Co.'s Staritt 1, SEc NE SE NE 26-6-3w, dr 2330 ft.

MAJOR COUNTY—Texas Prod. Oil Co.'s Basin 1, SWc 6-22-14w, spd and sd. Bradstreet

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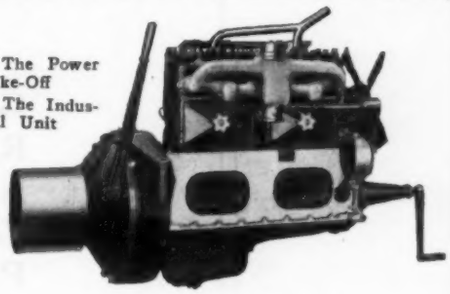

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Oil Co.'s Ratcliffe 1, C SW 9-22-9w, sd 3055 ft. Frantz & Slick's Gray 1, C NW 36-21-11w, sd 1000 ft.

PONTOTOC COUNTY — Harper et al's Dener 1, NWc SE SE 19-6-7, sd 2835 ft. Smith et al's Norris 1, SWc SE 34-4-6, sd 2430 ft. Riverside Oil Co.'s McFarland 1, NWc NE NW 4-5-5, sd 650 ft. C. J. Wrightsman's Floyd 1, SWc NW NE 24-4-4, dr 2600 ft. Galloway et al's Hays 1, NEc SE NW SW 13-3-6, sd 1160 ft. Craig et al's Starritt 1, NWc NE 5-4-5, sd 600 ft. Brinson et al's Brown 1, SEc SW SE 32-5-5, dr 577 ft.

OKLAHOMA COUNTY — Firestone Oil Co.'s School 1, NWc SE 36-1-3, dr 4210 ft.

POTTAWATOMIE COUNTY — Ossie Oil Co.'s Howell 1, SWc NE 17-10-2, dr 3045 ft. Davis Detrick's McGathey 1, SEc 10-6-2, sd 3850 ft. H. C. Guinnup et al's Floyd 1, SWc SE 12-11-3, fsh 3670 ft. North American Oil Co.'s Madgett 1, NWc 25-10-4, sd 460 ft. Maud Oil Products Co.'s Yinson 1, NEc SW 18-7-4, sd 2935 ft. McMann Oil Co.'s Neghan 1, SWc NW 10-7-4, sd 100 ft. Day Oil Co.'s Bell 1, SEc NW NE 9-5-3, sd 4021 ft. Halmond Osmond et al's Fiddler 1, SEc NW 4-5-5, sd 545 ft.

ROGERS MILLS COUNTY—Twin Hills Oil Co.'s McClure 1, NWc 15-16-26w, dr 3640 ft. Trio Oil Co.'s No. 1, SEc NW SW 3-13-26w, sd 3060 ft.

SEMINOLE COUNTY — Maxwell et al's Charty 1, C NE NW 33-6-6, sd 2100 ft. Link Oil Co.'s Carolina 1, C SE NW 14-6-7, sd 2840 ft. T. B. Slick's Sanny 1, 19-6-7, dr 3485 ft. Wm. McDougall's Dindy 1, C SW SW 30-6-7, sd 3350 ft. R. F. Garland's Farlin 1, C NE NW 6-6-18w, fsh 1390 ft.

WASHITA COUNTY—McCoy et al's Praeters 1, C SW SW NE 9-8-15w, sd 3115 ft.

WOODS COUNTY—Victor Oil Co.'s Van Buskirk 1, SWc SE 10-25-15w, sd 960 ft.

Kansas Wildcats

BARBER COUNTY—R. B. Brown's No. 1 NWc SW NE 33-30-14w, lining 3720 ft.

BARTON COUNTY — Cheyenne Oil Co.'s Sooy 1, SWc SW 27-18-12w, sd 3525 ft. Haynes et al's No. 1, NWc 31-12-12w, dr 2100 ft. Mountain States Oil & Gas Co.'s No. 1, SEc NE 22-18-13w, dr 3618 ft. Jasper & Beschka's Schauf 1, SEc NW 11-16-12w, dr 3450 ft. Huffine et al's Smith 1, C SE SW 21-19-12w, dr 500 ft.

CLARK COUNTY—Watcham O. & G. Co.'s No. 1 Morrison, SEc NE NE 2-22-21, set cas 4918 ft.

COFFEY COUNTY — Sunbeam Pet. Co.'s Andrew 1, NWc NE 30-20-15, rig. Manhattan Oil Co.'s Elliott 1, NWc SW 14-33-13, sd 350 ft. Braden Bros.' Beyer 1, SEc NW 13-22-13, rig.

CLOUD COUNTY—Livingston et al's Murdock 1, NEc 7-6-4w, sd 365 ft.

GEARY COUNTY—Liberty-Texas Oil Co.'s Wright 1, NEc 9-12-6, sd 750 ft; Foster 1, NEc SW 3-12-6, sd 2000 ft.

GOVE COUNTY—Keyes Bros. & Marine's Unknown 1, NWc SW 23-13-26w, lcn.

GRAHAM COUNTY—Keyes Bros. & Marine's Taxton 1, SEc NW 23-8-24w, dr 1410 ft.

FINNEY COUNTY—Garden City O. & G. Co.'s Wann 1, SEc SE 36-21-30, sd 2890 ft.

JEFFERSON COUNTY — Northern Counties' Edwards 1, SEc NW NW 13-8-19, sd 3405 ft.

KINGMAN COUNTY—Hale et al's Graber 1, SWc NW 34-27-7, sd 2543 ft.

LANE COUNTY — Richards Refg. Co.'s Dickenson 1, C S½ 17-18-22, rig.

LINCOLN COUNTY—Berry & Rosenthal's Lambert 1, C NW 31-12-10w, sd 3175 ft. Amerada Pet. Corp.'s Crawford 1, NEc SW SE 16-11-7w, sd 2740 ft. Equity Oil Co.'s Jellison 1, NWc SE 19-13-9w, sd 2700 ft. Scott & Collins' Stone 1, SEc SW NE 19-11-6w, sd 500 ft.

NEMAHA COUNTY — Nemaha O. & G. Co.'s Meyers 1, NWc 19-3-11, sd 3250 ft.

OSAGE COUNTY — Rodgers & Bittle's Bertha 1, SEc NW 22-17-16, lcn. Mul-Vit Dev. Co.'s Neil 1, NEc NW SW NE 8-17-17, sd 2735 ft. Baker et al's No. 1, C SE SE 3-10-14, sd 260 ft.

POTTAWATOMIE COUNTY—Crawford et al's Stewart 1, C E L SE SE SE 17-9-12, rig; Greishabert 1, SWc SE SE SW 13-9-18, rig; St. Mary 1, SWc 11-1-12, sd 2290 ft.

RICE COUNTY—Stamey et al's Barnes 1, SEc NE 21-20-6w, dr 2972 ft. Jasper & Beschka's Walker 1, SWc NE 10-18-6w, sd 1750 ft.

RILEY COUNTY—Pawnee Oil Co.'s Marks 1, SEc NE NW 26-10-6, sd 1700 ft.

ROOKS COUNTY—Keyes Pet. Co.'s Sandon 1, NWc SW SE 7-8-20w, spd.

RUSSELL COUNTY — Pomeroy et al's Cooper 1, SEc 33-12-11w, sd 2000 ft. Alcorn Oil Co.'s Seller 1, SEc 36-15-12w, dr 3250 ft.

SEWARD COUNTY — C. T. Dev. Co.'s Woods 1, NWc NE 34-34-34, sd 700 ft. Seward O. & G. Co.'s Selsey 1, NEc NW 2-33-33, sd 2427 ft.

SALINE COUNTY—Thrall et al's No. 1, SEc NE NW 15-15-4w, sd 1010 ft.

TREGO COUNTY—Keyes Pet. Co.'s Walsh 1, NWc SE 5-11-25w, sd 1450 ft; Walsh 2, SWc NE SW 5-11-25w, sd 1550 ft; Davis 1, NEc SW 16-11-24w, set cas 3030 ft.

WABAUNSEE COUNTY—Williams et al's No. 1, NEc SW 9-5-5, sd 3600 ft.

WOODSON COUNTY — Equity Oil Co.'s No. 1 Soloman, SWc NE NW 30-36-17, sd 3340 ft. Herman & Oghisby's Lauber 1, SWc 4-26-14, sd 850 ft. Skelly Oil Co.'s Rhea 1, C W L SE SW 13-24-15, spd.

Royalty
"Buy from the Owner"
Owner will sell one-half perpetual royalty on lands located in active territory between two drilling wells. Twenty acres or more, price $2.50 per acre. Terms if desired.
Address "Owner," P. O. Box 1036, Fort Worth, Texas.

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Specializing in Oil Law and Land Law

PATENTS
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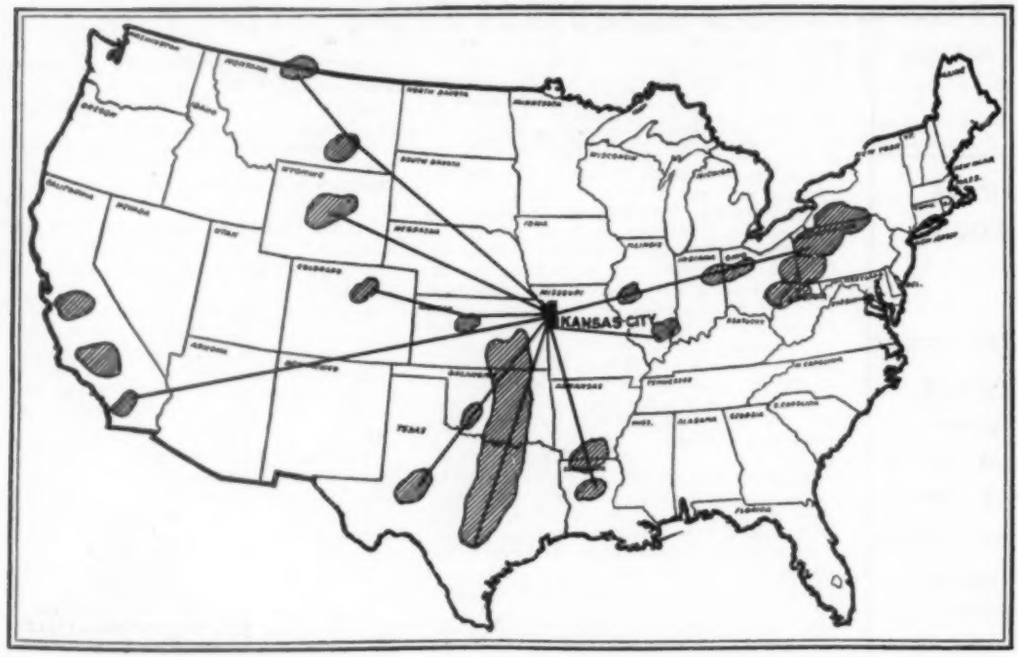
JESSE R. STONE
Formerly Assistant Examiner United States Patent Office
Andrews, Streetman, Logue and Mobley
12th Floor Union N. Bk., Houston, Texas

TEXAS OIL MAPS
County and District
Catalog on Application
HEYDRICK MAPPING COMPANY,
Wichita Falls, Texas

PERFECTION VAPOR PRESSURE TANKS
WOOD, AND BOLTED STEEL TANKS



Oil fields and possible oil fields are shown roughly in map above with the central location of our plant in Kansas City.

Our New Fabricating Plant

We are building a new fabricating plant in Kansas City to more effectively serve the oil producers of the nation in lease tank equipment.

Work was begun on the 10-acre site several months ago and the contractors plan to have the new plant ready for occupancy the first of the year.

Needless to say it is modern in every detail. The final plans were not drawn until the best ideas in modern industrial plants had been carefully studied throughout the country.

Of course we'll be able to make more Perfection Vapor Pressure Tanks and make them faster!

We feel it's a tribute to ourselves and our product that it became necessary to build the new Kansas City plant. In return we pledge ourselves to render super-service to service already beyond reproach, which the Kansas City plant makes possible.

Black Sivalls & Bryson
INC.

BARTLESVILLE ~ OKLAHOMA

Branch offices in all principal active fields

NEW EQUIPMENT, CATALOGS, BULLETINS, BOOKS

Fitz Packer Serves as Flowing Device Also

Combining the two advantages of a packer and a flowing device into one tool, the "Fitz" flow packer, manufactured and sold by the Oilift Company of Bristow, Oklahoma, is said by the makers to embody a number of improvements that have increased its usefulness in the field.

Fitz Flow Packer

As a packer the "Fitz" flow packer will handle all the oil the tubing will carry and at the same time make the gas pull oil from the bottom. Taking the oil beneath the working barrel and the gas above, it takes the high gas pressure off the oil sand. The "Fitz" can be run into any flowing well where any other packer can and is adaptable for deep wells as there is no strain on the tubing when pulling.

As a flowing device the "Fitz" flow packer in the well equips that well for pumping when the packer is run as the operator can pump right through it. Water can be pumped off and the packer will flow the oil, according to the manufacturers. Oil can be pumped up to the packer and the gas pressure will bring it on up and with a little pumping weak wells may be agitated.

The working parts of the "Fitz" flow packer are so built that sand, salt, water or pumping will not affect its labor and the packer can be pulled out of the well without fear of sticking or catching.

More detailed information can be secured from the Oilift Company, Bristow, Oklahoma.

Late Oil and Gas Code

A complete code for the oil and gas business is now available in book form. The first few pages are devoted to directions for using the code and explain in detail the different sections that follow.

Phrase tables are the first part of the code proper. These include prefixes and endings and run the entire alphabet. Then follow flexible phrases in both questions and answers.

There are then 555 pages of general phrases including every expression used in either the oil or gas business, with respective codes in both letters and numbers.

This code is of recent edition and will be a valuable reference in the office of every oil and gas company.

Copies are for sale by The Gulf Publishing Company, P. O. Box 1307 Houston, Texas.

Special Pump for Field Service of Small Lines

A pump designed and built for oil field work has recently been put on the market by The Prescott Company, Menominee, Michigan. The pump has been constructed by men who know pumping equipment and is characterized by extreme simplicity and accessibility.

The main frames are of semi-steel of box shape design and cast in one piece, heavily ribbed to secure rigidity and strength.

Lower halves of the two main bearings are cast integral with the frames and set at an angle most advantageous to take up pressure and wear. The caps are held in place by heavy studs and both caps and lower bearing halves are lined with high grade babbitt. Bearing surfaces are large and well lubricated to insure cool running and minimum of wear.

Laminated brass shims are provided for adjustment in case of wear.

The crank shaft is forged from the best grade open hearth steel with an ultimate strength of 70,000 to 80,000 pounds per square inch. Cranks and pins are made in one solid piece from annealed electric steel and are accurately shrunk on the crank shaft and firmly keyed thereto. Connecting rods are forged from open hearth steel.

One set of gears accomplishes the entire reduction in speed from driver to pump. The gearing is of the herringbone type with double helical teeth of liberal proportions, resulting in low tooth pressures, minimum wear, quietness in operation and high efficiency.

Pinion bearings are of the ring oiling type with removable shells.

The entire fluid end is cast from a special alloy known as Sigeron Fluid End Metal. It is a particularly close-grained, dense alloy peculiarly adapted to hydraulic service where higher pressures are encountered and where absolute freedom from leaks is the prime requisite. These fluids are all tested to 1800 to 2000 pounds per square inch and are designed for 900 pounds working pressure. By changing plungers or speeds, or both, the pump has a range in capacity from 4000 to 6000 barrels per day. This makes it a splendid field pump as well as a good station pump on the smaller lines.

A complete bulletin describing the pump and other information will be sent upon application to The Prescott Company, Menominee, Michigan.

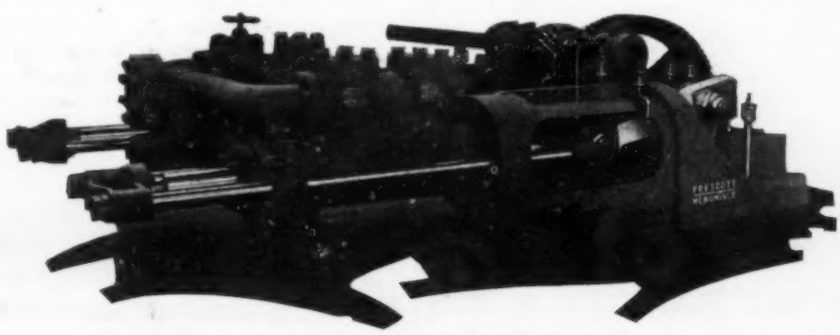
Gas-Tight Hi-Speed Anchor For Pumping Oil Wells

As a safeguard against losses from fire, wind, crystallization, and gas, in pumping wells, the Houston Pump and Supply Company, Houston, Texas, is offering a Hi-Speed tubing anchor.

The anchor is made entirely of forgings and consists of a forged steel circular body. Recesses for one-half inch hydraulic packing on the bottom side make a gas-tight joint when placed in the common type casing head.

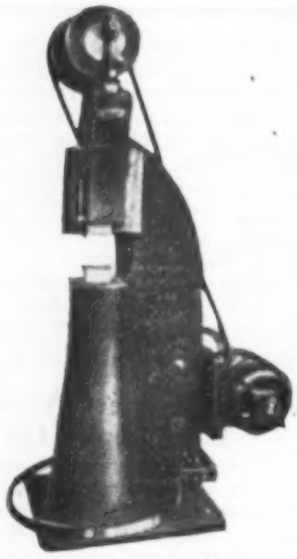
The body is heated internally at the top for the tubing lift nipple and also for tubing. Provisions are made for the insertion of a set of hardened slips at the bottom of the anchor in connection with the lower bushing. One set of slips is furnished with each anchor.

To install the anchor it is only necessary to remove the upper collar



Prescott-Menominee Special Field Pump

Manufacturer and Supply Dealer Notes



Beaudry General Service Hammer

General Service Hammer For Field Machine Shops

For shops where there is not sufficient blacksmithing done to warrant any large investment in a power hammer, but where a general service tool is needed, the Beaudry Company, Incorporated, has designed and put on the market a hammer which is rapidly finding favor.

The ram or hammer head is of steel and has external elliptical-shaped tracks. Two steel spring arms with steel rollers at the lower extremities and a helical spring at the top, operate upon the curved tracks and lift and throw the ram, which, with increased speed of hammer acquires increased travel and force of blow, and full stroke can be had on varying thicknesses of stock. No change of adjustment is necessary exceptihg for unusually heavy or special work.

A foot treadle extending around the base of the machine starts, stops, and regulates the hammer. By means of this treadle varying pressure is obtained for any force of blow or desired speed.

The ram is fitted to heavy guides and is adjustable on its connecting rod for varying heights above the dies. It has an adjustable taper gib for taking up wear.

These hammers may be worked to equal advantage from all sides, the anvil clearing the main frame casting, allowing bars of any length to be worked either way.

As regularly furnished the hammers may be operated by an overhead belt running at any angle or by a motor attached in the frame. They may be turned into a motor-drive at any time without any mechanical change except for the bolting on of the motor bracket and the attaching of the motor to it.

Complete particulars are available from the Beaudry Company, Inc., Parkway at Vine Street, Everett, Massachusetts.

Gas Generators from Tulsa Go to Russian Company

Tulsa, Okla., Nov. 29.—A shipment of Ajax gas generators is being made by the Baird Supply Company of Tulsa for final delivery to the Russian Oil Trust and Baku, Russia. Shipment is being made by way of New York.

The Ajax gas generators are in use in the Mid-Continent and Eastern fields, the installations being made in connection with all types of oil field gas engine equipment. The Baird Supply Company maintains offices at 209 S. Cincinnati Avenue in Tulsa.

Jarecki Buys New Plant In Erie, Pennsylvania

Erie. Pa., Dec. 3.—On September 29 last, the Jarecki Manufacturing Company of Erie, Pa., manufacturers of pipe fittings, valves, pipe threading machines, and oil well supplies, purchased the Erie Howitzer Plant, pictured above, from the United States government.

Upon our entrance into the war the Erie Howitzer Plant became famous as one of the first to deliver howitzers to the government. Employing 7200 men, and running at its peak, it produced 80-155 mill howitzers, nearly 35,000 9.2-inch shells, and 23,700 155 mill shells per week.

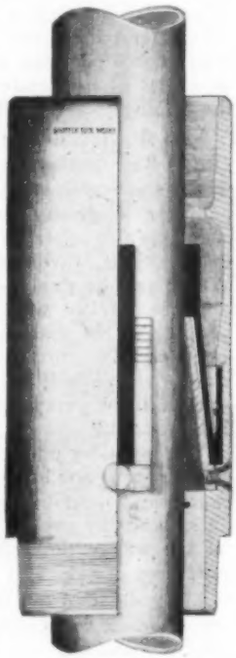
This plant is ideally situated in regard to transportation, with foundries and machine shops of the newest design, with over nine acres of floor space and with plenty of room for expansion, will enable the Jarecki Manufacturing Company to combine their two plants into one establishment and will form the first unit at the new location.

No interruption to manufacturing will be caused by the removal to the new location, as the company intends to take nearly a year for this and move but small sections at a time.

Packer Forces Circulation Through Stuck Drill Pipe

Pulling a lost string of drill pipe is made much easier if circulation can be forced through it, experienced drillers declare. To get this circulation is the purpose of a recently invented packer patented by H. A. Schmidt and H. A. Myers, Brea, California, and being marketed by the Shaffer Tool Works of that city.

The packer is made to screw onto the washover pipe so as to be run with an overshot or other fishing tool. Rubber packing closes the space between the washover pipe and the stuck drill pipe and thus enables the driller to force circulation through the pipe.



Plates support the rubber packing ring. These plates expand and permit the packer to pass over a tool joint or collar and then close around the pipe so that there is no opening for the rubber packing to blow through. In actual test this packer has held all the pressure that could be forced by the pump, the inventors claim.

Since the packer is not built into the overshot, it can be placed either above or below it according to the special conditions on the fishing job.

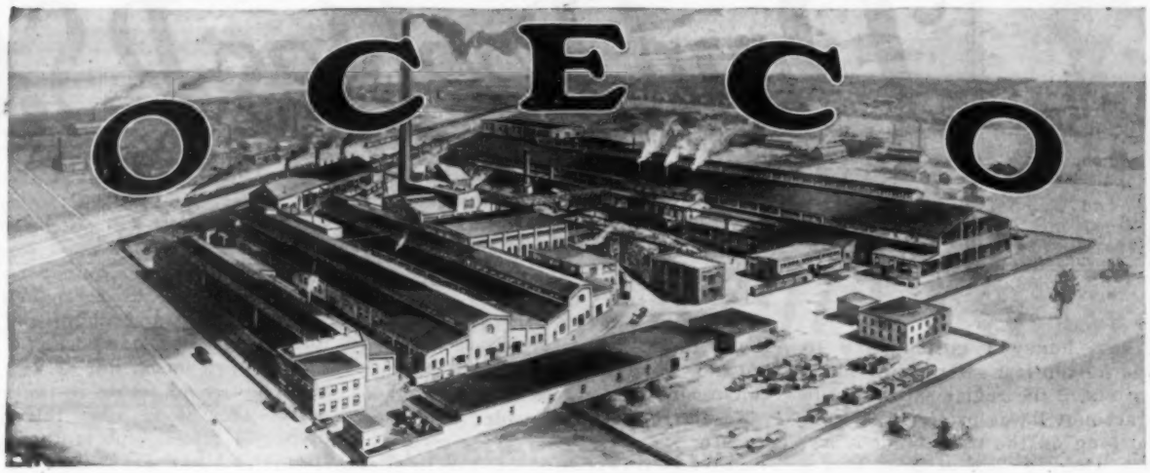
For further information apply to the Shaffer Tool Works, Brea, California.

from the first joint of tubing, place the lower bushing and slips on the tubing and insert the tubing through the lower end of the anchor and make up tight with tongs. The lower bushings and slips should then be made up with tongs until the slips have taken a firm seat on the tubing.

This anchor is furnished to fit all standard sizes of tubing and casing.

More detailed information will be supplied by the Houston Pump and Supply Company, Houston, Texas.

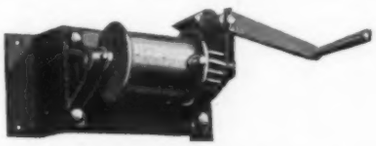
Former Howitzer Plant of U. S. Goverment, bought by Jarecki Manufacturing Company to be used as the company's new home



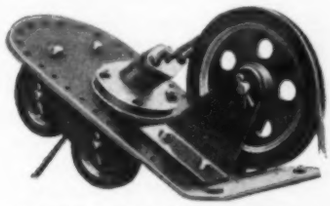
The Home of OCECO Equipment

OCECO—Gauge and Thief Hole Cover

OCECO—Roof Manhole Cover



OCECO—Safety Tank Winch



OCECO—Cable Sheave Bracket

Approved by The Underwriters' Laboratories, Inc.

OCECO—Conservation Vent Unit

Tank Equipment That Pays for Itself

FROM the home of OCECO Equipment comes a remarkable line of products that have been making history in the tank equipment field.

Gas-tight gauge and thief hole covers, gas-tight roof manhole covers, gas-tight cable sheave brackets. Vent equipment that allows tanks to breathe but not waste—all these mean tremendous savings. Savings on evaporation. Reductions in insurance premiums.

Just think—savings of such magnitude that in about a year they have been found to cover the cost of the equipment itself. Thus, OCECO really pays for itself by its savings. After that the yearly savings are a clear gain.

You are paying for OCECO Equipment whether you accept it or not if you are allowing old fashioned equipment to waste the contents of your tanks through evaporation and prevent the reduction in insurance premiums which proper tank equipment would mean to you.

Now is the time to OCECO Equip. Write, phone or wire our nearest office for details.

The Oil Conservation Engineering Co.

Manufacturers of fire-prevention and evaporation-prevention equipment for tanks

Addison Road & N. Y. C. Tracks

CLEVELAND, OHIO

1158	Cunard Building, (25 Broadway)	New York City
1454	Monadnock Building	Chicago, Illinois
220	Iowa Building	Tulsa, Okla.
809	Texas National Bank Building	Ft. Worth, Tex.
306	O-S Building	Casper, Wyo.
318	East 12th Street	Los Angeles, Cal.
440	Howard Street	San Francisco, Cal.

Beaumont Export & Import Co., Perlstein Bldg., Beaumont, Texas
Distributors
Gulf Coast Field and Republic of Mexico

OCECO

LETTERS OF Paul Peebles P.S.G.

mi deer cleopatry

well cleo hunny I gotten back to good old huston last saterdy nite but 2 late 2 attend 2 the reglar satterdy nite job on account I was pretty tired from ridin so long on the trane. but it has bin cool where I was at & it was a frost in Huston when I gotten up 1 mornin this week, so I gess I can make it out to anuther satterday without givin no seerus ofenst. at least I will not giv as mutch offents as slim which is threw with his satterday nites till sumboddy has pitty on the rest of the werld & pushes him in the bay next spring. but I gess that aint no news 2 yu on account yu keep on lettin him try 2 hang around yu, whitch is 1 of the things I cant understand about yu.

well before I git down 2 ansering yore sweet letter 2 me, I gess yu want 2 no about mi persernel movements whitch is most important 2 yu on account of the intrest yu hav in me. well I ritten 2 yu last week about bein in cleevland & of corse I cood not tell yu all about mi trip up their in a letter but mabe I can tell yu sum moar about it when I see yu agin if I can remember.

well ennyway I told yu about mi watch gittin rong up there. well I went on over 2 pitsberg, pa. & it was still rong but when I gotten on the trane 1 nite in pitsberg & gotten off the next mornin in chicargo well mi watch was rite agin & I well not hav 2 take it back & ball out the man what sold it 2 me. I thort when I borten that watch that it wood keep time all over the world. but if it keeps time in huston & chicargo alrite well I gess it will be all okay like it is.

well hunny I went over to pittsberg just 2 look at the town but yu cood not see it for the smoak whitch is on account of the town bein up on the sides of hills & steal mills & ralerodes down on the river banks in the bottoms. if they hader had enny sents when they bilt the town in the first place well they wood hav put all of the smoak on top of the mountins & then mabe it wood a blowed away & not be like it is.

they hav a hole lot of rocks up there that I wood a liked 2 geeologize but they are all smoked up & sum of them had ice on them, so I did not fool with it.

I asted a feller there where was the pittsberg plus but he did not no what I was talkin about, so I gess he does not no what made his town famust ennymoar than a feller in milwaukee can remember what made that town famust.

ennyway it is enuff steal mills in pitsberg & around them parts that I gess we will hav enuff pipe 2 do all the drillin what is to be done & also bild sum moar pipe lines mabe.

well 2 git back 2 yore sweet letter 2 me. hunny it shore is nise of yu 2 be wondering what the new tern in finding salt dumes in the gulph coast cuntry will do 2 mi geeology perfession. well hunny it will not hert me atall, because I am alreddy neerly two yeres ahed of the sees-more-graft. yu remember I ritten 2 yu wunst about the paul peebles patent sees-more-graft & mi experents with it. well after that experents I am moar convinsed than ever that the best way 2 find oil in the gulph coast cuntry is with a fish tale bit & a rock bit when nessessary. so I am not worried about the sees-moar-graft bothern mi bizness atall.

& the torshun balance. well I aint never fooled with 1 of them yet but mabe I will patent me 1 if they git reel poplar, but I do not think they are sutch a mutch & will not be mutch of a fad. the way 1 of them works is if yu spend part of the munny yu hav investigatin with the torshun then yu spend the balance findin out if the torshun is a lire or not.

hunny yu need not 2 be worried about me & mi future in the geeology perfession. it is sum things where branes is moar importanter than masheens & I hav got branes. & besides I can taste sour watter better than enny man that ever come 2 these parts.

& ennyhow when yu hav found a salt dume—what hav yu found then till yu find out?

but ennyhow yu wanted me 2 tell yu about the scients of the seesmore graft. well hunny yu bein a woman yu can not understand mutch about it but I will tell yu this mutch from the gometrick deduckshuns whitch I made when I was perfectin mi masheen whitch will lokate the dume alrite but yu hav 2 hunt for the oil. the principul is pretty complikated & simple. yu set up the masheen & then shoot a charge of dinnamite. the dinnamite makes a sound whitch goes down in the erth & bounces off of the cap rock or the salt. it will not bounse off of nuthin elst. well then all yu hav 2 do is calculate the distants.

the way yu calculate is this: it is a well noed principle of applied mathematics that a sound travelin in a given direckshun goes at a akseierating or diminishin rate of speed in every direckshun till acted upon bi sum outside forse. when it busts up agenst a sound proof barrer well it bounces. whitch way it bounces is accordin 2 whitch way it hits, just the same as a ball bounces. mabe it is a quick bounce & mabe it is a slow bounce whitch depends upon whitch way it is goin when it hits. well all yu hav 2 do then is let x be the distants. minus the rebound multiplied bi the square of the velosity of the direct wave divided by the cube rute of the velosity of the echo times q. e. d. and that is all they is to it, besides then you wonder what it is all about & sumboddy has 2 spend sum munny 2 find out.

I werked out the masheen & the formalar for making

CAMEL HAIR BELTING

AXELSON
Working Barrels
and Sucker Rods

REID Engines
and Powers

RATIGAN
Beam Hangers,
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WHITLOCK
All-Manila
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NATIONAL
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DREADNAUGHT
Rotary
Equipment

DONOVAN
Boilers

ROEBLING
Wire Lines

F-R SERVICE
Rubber Belting

JONES & LAUGHLIN
Tubular Goods

The Development of More than 2074 Years

KNOWLEDGE and use of the expansive force of water vapor existed more than 150 years before Christ was born. Hero of Alexandria wrote about steam devices of contemporaries and predecessors. He even rigged one up himself, using its force to blow an organ or turn a skillet, or something equally foolish.

Many men have experimented more seriously with steam since Hero did his stuff. But as far as Oil Country equipment goes, the sum total of human experience in steam appliances is culminated in any Donovan Boiler.

Just as a matter of keeping up with modern equipment, every Oil Man should know about Donovan Boilers—how little fuel is required to fire them, how steadfastly they keep up steam, how long they last.

They can tell you all about Donovan Boilers at the Frick-Reid Store in your field, or a letter addressed to our Tulsa office will bring you complete information without obligation.

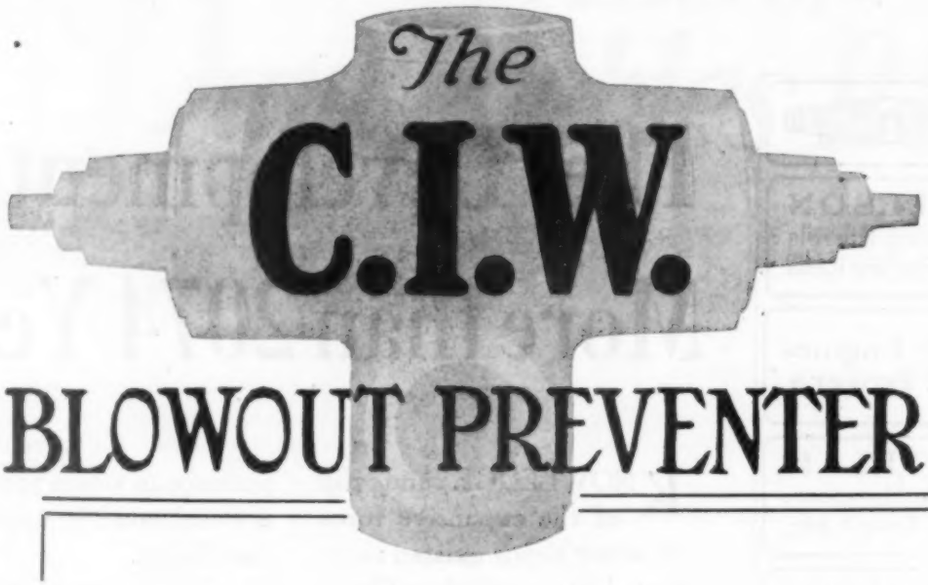
Complete Cable Tool Equipment—F. R. Electric Light Plants — Warren Steam Engines — Johns-Manville Packings—Carbic Oxy-Acetylene Welding and Cutting Apparatus, etc.

The Frick-Reid Supply Co.

Tulsa, Okla. Pittsburgh, Pa.

West of the Mississippi—Stores Everywhere

In Oil Country Equipment—the most HUMAN organization in America



BLOWOUT PREVENTER

Here's A Sure Preventer of Blowouts

Distinctive Features

A steel body with sufficient thickness to withstand any pressure encountered in well drilling.

Rams are interchangeable for the different size drill stem or casing used.

Contains no gaskets, flanges, lead, babbitt or bolts to break or give way under pressure.

Opening of sufficient size to permit the passage of as large a bit as the casing allows.

Simplicity of design and working features.

Casing may be set through it.

TESTED AND GUARANTEED TO HOLD 2000 POUNDS CLEAR COLD WATER PRESSURE.

Made in sizes to fit onto 6, 6⅝, 8 and 10-inch Casing

The Greater the Gas Pressure the Tighter the C. I. W. Blowout Preventer Will Hold

The great success of the C. I. W. Blowout Preventer is due to extra strength, and to its exclusive patented packing. It is impossible for gas pressure to get past the preventer.

The C. I. W. Blowout Preventer gives positive insurance against blowouts at very little cost.

Write us for Specifications and Prices

Cameron Iron Works

Houston, Texas

Say you saw it in The Oil Weekly

SQUEAKS from the BULL WHEEL

the calkulashuns but I desided that I aint no addin masheen & if I hav got 2 do nuthin but figger on a sheet of paper 2 make me a livin well I wood rather starve. so I hav giv up the sees-more-graft an gone back to the old time way of findin dumes. the masheen way mabe is the most scientifickest but the old time religion is good enuff for me & it aint nuthin in the bible about a masheen talkin like that. an besides I don't like crawlin around on mi hands & nees listenin if it is a echo 2 see if the masheen is a lire 2 me & besides it is dangerus both 2 me & 2 enny innersent animls whitch mite be under the ground.

well hunny we did not hav no thanksgivin dinner at our bordin house on account the widder what I bordes with was gone from town that day, but she borten sum turkey hash in a can when she cum back & we hav bin eetin off it evry sinct, whitch makes it all the same as if we had a had a reglar turkey dinner. it is verry hoamlike where I am stayin & yu are the onliest woman I wood ever giv it up for.

Well I gess mi next trip is 2 fort worth 2 the API meetin. Hunny, yu no that this is the meetin where all the big boys in the oil bizness gets 2gether & it wood not be compleat without me.

hopin yu are the same,
yore lovin paul.

Ma's New Girl

"Maggie, go and see if the cake's done. Stick a knife in it. It's done if the knife comes out entirely clean."

Maggie departed. Some minutes later she returned beaming.

"The knife come out as clean as a whistle," she said, "so I put the rest of the knives in it, and the forks and spoons, too."

"In the paper here is a picture of an Indian girl flapper with short hair."

"Well, why not? Her people were the original bobbers, and, man, when they bobbed they bobbed!" — Youngstown Telegram.

First Bachelor—Some people seem to find matrimony very stimulating.

Second Bachelor—Something brewing all the time, I suppose.

Her Husband

"Is your husband an optimist?"

"Well, he's an optimist in hoping for the best, but a good deal of a pessimist in working for it."—Boston Transcript.

Sister's Objection

"What is your objection to kissing a man with a beard?"

"Simply because I'm dead against entangling alliances."—Judge.

The New Way

"So you got square with Dolly?"

"Yes, I was ahead of her in the barber shop and made her wait an hour."—Judge.

Cook's Directions

"Dear, these cakes are hard as stone!"

"I know. Didn't you hear cook say, 'Take your pick,' when she handed them round?"—Film Fun.

L. F. Barkley of Sour Lake and his speed boat which the natives claim will make 150 miles per hour

For the Ice Man

"Jones is feeding his wife an apple a day now to keep the doctor away."

"Hum—that so? Well, he needn't worry about the doctor. He'd better do something about that ice man, though."—Fig Leaf.

A big darky was being registered during the draft. "Ah can't go to wah," he answered in re-exemption, "foh dey ain't nobody t' look after mah wife."

A dapper little undersized colored brother stepped briskly up and inquired: "What kind of a lookin' lady am yo' wife?"—Smiles.

Name for Baby

"I'm going to call my baby Charles," said the author, "after Lamb, you know. He is such a dear little lamb."

"Oh, I'd call him William Dean," said the friend, "he Howells so much."—Wisconsin Octopus.

"What kind of a car you got?" asked one of the two sore-footed OIL WEEKLY newshounds, as they trudged behind a hard working tool pusher over at Sour Lake.

For answer he mentioned a car of light draft and perhaps less known than the Ford. Thereafter passed some complimentary remarks anent the good qualities of the car mentioned.

Then the garage door was opened and the two sore-footed ones blinked their eyes, for they saw just what the picture above revealed.

For those who do not know him, he is L. F. Barkley. And for those not acquainted with the car, it's a Pierce-Arrow. Incidentally that's not the make he mentioned when the question was asked.

Barkley says the car will make the law's limit without any trouble. The natives around Sour Lake say it will make 150 miles an hour.

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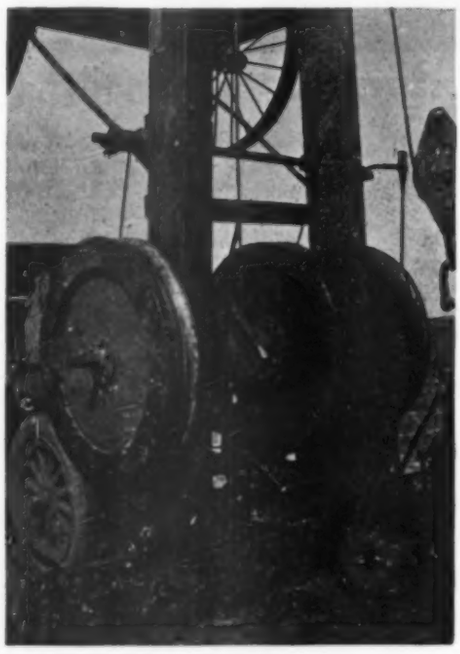

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Vinson, Elkins & Wood

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The Cunningham Co.
Brown Welding & Machine Co.

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